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Distance Education Experiences of Formal Child Development Undergraduate Students in the COVID-19 Pandemic Process

COVID-19 Pandemi Sürecinde Örgün Çocuk Gelişimi Lisans Öğrencilerinin Uzaktan Eğitim Deneyimleri

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Özet

Araştırmanın amacı, koronavirüs (COVID-19) pandemi sürecinde Türkiye'deki devlet ve özel üniversitelerde çocuk gelişimi alanında örgün lisans eğitimi alan öğrencilerin uzaktan eğitim deneyimlerinin incelenmesidir. Araştırmada karma yöntem desenlerinden yakınsayan paralel desen kullanılmıştır. Verilerin toplandığı 2021 yılı Mart-Nisan aylarında örgün çocuk gelişimi lisans eğitimine pandemi nedeniyle uzaktan devam eden 788 öğrenci nicel ve 11 öğrenci nitel boyutta ele alınmıştır. Nicel boyutta "Uzaktan Eğitim Deneyimleri Soru Formu"; nitel boyutta "Uzaktan Eğitim Deneyimleri Nitel Görüşme Formu" kullanılmıştır. Pandemi tedbirleri çerçevesinde nicel veriler çevrimiçi form; nitel veriler online görüşme yoluyla toplanmıştır. Verilerin analizinde betimleyici, tanımlayıcı istatistikler ve betimsel içerik analizi kullanılmıştır. Bulgular, nicel boyutta yedi başlık altında; nitel boyutta altı tema etrafında toplanmıştır. Öğrencilerin pandemide uzaktan eğitimden en fazla (%36,8) teorik bilgi düzeyinde ve en az (%8,5) mesleki uygulama becerilerinde katkı sağladığı; uzaktan eğitime ilişkin genel memnuniyet düzeylerinin sayısal oranlama skalası üzerinden ortalama 4,55±2,75 olduğu; pandeminin ardından büyük çoğunluğunun (%70,2) derslerin tamamının yüz yüze olmasını talep ederken; %5,1'inin derslerin tamamının uzaktan eğitim yoluyla olmasını talep ettiği belirlenmiştir. Aktarılan uzaktan eğitim deneyimleri pandemi gibi olağanüstü bir durumda geçici olarak gerçekleştirilen acil uyum sürecinin bir parçasıdır. Pandeminin ardından uygulamalı alanlar için bu tür araştırmalarla ihtiyaçlar belirlenerek uzaktan eğitimin daha nitelikli hale getirilmesi için çabalar sürdürülmelidir.

Anahtar Kelimeler: COVID-19, uzaktan eğitim, çocuk gelişimi lisans eğitimi, karma yöntem araştırması.

Abstract

The purpose of the current study is to examine the distance education experiences of students who are receiving formal undergraduate education in the field of child development at public and private universities in Türkiye during the coronavirus (COVID-19) pandemic. The convergent parallel design, one of the mixed method designs, was used in the study. In March-April 2021, when the data were collected, 788 students who continued their formal child development undergraduate education through distance education due to the pandemic were included in the quantitative dimension and 11 students were included in the qualitative dimension of the study. Due to the measures taken during the pandemic, quantitative data were collected through online form and qualitative data were collected through online interviews. It was determined that the students benefited from distance education the most in terms of theoretical knowledge and the least in terms of professional practice skills, that the students' general satisfaction level with distance education was 4.55±2.75 on a numerical rating scale during the pandemic and that the vast majority of the students demanded that all courses be face-to-face, while 5.1% demanded that all courses be through distance education after the pandemic. The reported distance education experiences are part of the temporary adaptation process in an extraordinary situation such as a pandemic. After the pandemic, efforts should be continued to make distance education more qualified by determining the needs for applied fields with such studies.

Keywords: COVID-19, distance education, child development undergraduate education, mixed method research.

The coronavirus (COVID-19) pandemic has shaken the whole world, making countries face with an education crisis as well as a health crisis. As in all education levels, education was suspended in universities as well. Within the scope of the measures taken in our country, universities had to take a break from education for 3 weeks as of March 16, 2020, and right after that, starting from the spring semester of the 2019-2020 academic year, it was decided to switch to the distance education process by using digital tools in all universities having a capacity to deliver distance education (Council of Higher Education, 2020a; 2020b).

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While it was more difficult to structure the distance education process urgently initiated for applied fields and some of the applications required for students to acquire professional skills and competences were postponed to be conducted in the future through face-to-face education while some of them were tried to be carried out by using different methods and techniques within the scope of distance education.

Along with the pandemic, the necessity of revealing the effects of conducting the distance education process with different methods and techniques in different fields has resulted in many studies on how distance education is experienced by university students. When the studies that draw attention to the extent to which vocational training could be conducted in applied fields were examined, it was determined that approximately 700 university students who received distance education in the field of health in Brazil during the pandemic thought that their vocational training would be insufficient and they were worried that they would fail in the field (Peloso et al., 2020).

Although there are many publications investigating the distance education experiences of students and faculty members during the pandemic in Türkiye as in the world, there have not been any studies investigating how distance education is experienced by undergraduate students in the field of child development, which is an applied field. With this study, it is aimed to understand how the distance education approach, which is the only solution to continue educational activities at the undergraduate level, as in other education levels, during the pandemic, is experienced by formal child development undergraduate students. Determining what kind of needs the distance education, which was put into practice without adequate preparation, created in terms of vocational education in the field of child development may contribute to the development of solutions and to the existing literature on this subject.

While distance education was a remarkable subject and application before the pandemic, it has become a compulsory situation that needs to be adapted to as a result of the pandemic. Keagen, who pioneered the development of theories about distance learning having a history of about 300 years, emphasized the theory of autonomy and independence of the learner, which refers to the learner's learning anytime and anywhere and to the control of the pace of learning, the theory of industrialization of instruction, which refers to the organization of learning and the theories of interaction and communications, which focus on relationship between the educator and the learner (Gürer, 2020).

In the current study, it was aimed to examine the distance education experiences of students who received formal undergraduate education in the field of child development in public and private universities throughout Türkiye during the coronavirus (COVID-19) pandemic.

To this end, answers to the following research questions were sought:

1. How did the distance education experiences of the students during the pandemic process take place in the dimensions of "educational process", "infrastructure and access", "delivery of lessons and participation in lessons" and "measurement and evaluation"?
2. To what extent did the distance education contribute to the students in terms of theoretical knowledge, professional practice skills and digital literacy skills during the pandemic?
3. What is the students' general level of satisfaction with the distance education during the pandemic?
4. What are the students' demands for distance education after the pandemic ends?

Method

In the current study, distance education experiences of formal child development undergraduate students during the COVID-19 pandemic were examined with convergent parallel design, one of the mixed method research designs in which quantitative and qualitative methods are used together. Researchers seek answers to the same research question by using different research methods and techniques on the basis of the mixed method approach, which is defined as a way of triangulation by applying quantitative and qualitative research techniques simultaneously and giving equal weight to them with the purpose of presenting the problem better (Creswell & Creswell, 2018; Cresswell & Plano Clark, 2017; Dede & Demir, 2015; Yıldırım & Şimşek, 2016). In the study, quantitative data were obtained with an online questionnaire, and qualitative data were obtained with a semi-structured interview form.

Participants

The population of the study consists of university students at all grade levels who receive formal child development undergraduate education within the faculties or colleges of state and private universities throughout Türkiye. According to the data obtained from the higher education statistics of the 2019-2020 academic year, the total number of students receiving formal child development undergraduate education within 39 faculties or colleges affiliated to public and private universities throughout Türkiye was determined to be 8370 (Council of Higher Education, 2020c).

In line with the purpose of the study, the purposive sampling method was used, since it was aimed to reach university students who were receiving formal child development undergraduate education (Erçetin, 2020; Özdemir et al., 2019). In the calculation of the sample size, the sample size chart of Cohen et al. (2018) for populations of different sizes was used. According to the table, the population size of 10000 people is represented by 622 people within the scope of 99% confidence level (5% confidence interval).

Since it was planned to collect data through the online form in the quantitative dimension of the study, it was tried to reach the entire population without choosing a sample, and the study was carried out with all the students who volunteered to participate in the study. A total of 788 students who participated voluntarily and filled out the data collection tool completely were included in the study. By using the maximum variation sampling method in the qualitative part of the study, it was planned to take a total of 20 students who participated in the quantitative part of the study, volunteered to be interviewed and attended different universities in such a way as to include an equal number of students from each grade level. However, as the data obtained during the data collection process reached saturation, the data became repetitive and a new code category could not be created, the process was terminated with 11 students from 8 different universities. It is recommended that the sample size of qualitative studies be in the range of 5-25 (Güler et al., 2013). As a result, the sample of the study consisted of 788 university students in the quantitative dimension and 11 university students in the qualitative dimension, who continued their formal child development undergraduate education through distance education due to the pandemic in the 2020-2021 academic year and voluntarily accepted to participate in the study.

Of the participants (n=788), 96.3% are females and 3.7% are males. The students aged 25 and under constitute 91.8% of the participants. Of the participants, 35.4% are first-year students, 26.4% are second-year students, 20.8% are third-year students and 17.4% are fourth-year students. While the rate of the students studying within a faculty is 90.5%, the rate of the students receiving their education within a college is 9.5%. While 86.6% of the participants attend a public university, 13.4% attend a private university and 73.9% of the students attend a university located in their city of residence.

Data Collection and Analysis

In line with the purpose of the study, two different tools were used to collect the data. In the quantitative dimension of the study, the "Distance Education Experiences of Formal Child Development Undergraduate Students Questionnaire", developed by the researchers to elicit data about the students' socio-demographic features and experiences of distance education was used. The questionnaire consists of 66 items gathered under the following five headings; "information form for participants", "educational process dimension", "infrastructure and access dimension", "delivery of lessons and participation in lessons dimension" and "measurement and evaluation dimension". The questionnaire was administered online.

In the qualitative dimension of the study, the data were collected through online interviews tape-recorded with the consent of the participants by using the "Distance Education Experiences of Formal Child Development Undergraduate Students Qualitative Interview Form" prepared by the researchers in order to examine the students' views on distance education in more detail within the framework of current pandemic measures. The interview form consists of 22 questions. During the creation of the interview form, a draft form was prepared through the review of the relevant literature. Expert opinion was obtained from three academicians specialized in the field of child development for the draft form. With the feedback from the experts, the interview form was finalized.

The study was carried out within the scope of the decision of the Social Research Ethics Committee of İzmir Katip Çelebi University, dated 05.02.2021 and numbered 2021/02-03. After the approval of the ethics committee, permission requests were sent to the Child Development Departments of the relevant universities and the link of the questionnaire was sent to the students through the faculty members of the relevant departments. Research data were collected in March-April 2021 from 25 universities which positively responded to the data collection request out of 39 universities, all volunteer students were included in the study and the data collection process was terminated when the minimum sample size and volume were exceeded.

In line with the convergent parallel design adopted in the current study, quantitative and qualitative data obtained from different sources were collected independently from each other in order to answer the research questions. The obtained data were analyzed separately and independently from each other and presented in the findings section. Quantitative and qualitative data presented separately are discussed together in the discussion part and tried to be interpreted in the light of the relevant literature.

In the analysis of quantitative data, descriptive statistics were analyzed with a statistical program. In the analysis of qualitative data, the descriptive content analysis method was used and the data were collected under six themes. In the study, the opinions of the students are presented with codes such as S1, S2, S3 … without giving their names. Then, the data were brought together and the two types of data were associated, and quantitative and qualitative data could be compared and integrated.

Results

Quantitative Findings Obtained Through the Questionnaire

While presenting the findings, the first-year students who did not start university life in the previous year and therefore could not make comparisons were excluded from the analysis. Moreover, the answers left blank for each finding were stated as missing data, presented as "not stated" in the tables and were not included in the analyses.

Table 1. Students' responses in the dimension of educational process (n=788).

Features of the Dimension of Educational Process			Frequency (n)	Percentage (%)
1. Type of education during the pandemic		Distance education	772	98.0
		Blended education	16	2.0
2. Comparison of course load during the pandemic and face-to-face education		More intense in distance education	437	55.4
		The same intensity	214	27.2
		More intense in face-to-face education	137	17.4
3. The effect of distance education on the interest in lessons		Decreased	630	79.9
		Increased	158	20.1
4. Motivation to study regularly in distance education		Yes	132	16.8
		No	375	47.6
		Partially	281	35.6
5. Factors affecting motivation to study in distance education* Not stated (n=2)		Being away from the campus	481	73.5
		Focusing problem/lack of attention	462	70.6
		Lack of interaction in lessons	461	70.5
6. The frequency of following courses in distance education	**Required content courses**	Never	8	1,0
		Rarely	31	3,9
		Sometimes	80	10,2
		Usually	271	34,4
		Always	398	50,5
	Elective content courses	Never	25	3,2
		Rarely	55	7,0
		Sometimes	112	14,2
		Usually	276	35,0
		Always	320	40,6
7. How theoretical courses are delivered by the academician in distance education* Not stated (n=3)		Lecturing (the camera is off)	227	28.9
		With materials (the camera is off)	251	32.0
		Lecturing (the camera is on)	342	43.6
		With materials (the camera is on)	443	56.4
8. Methods used in the delivery of theoretical courses in distance education* Not stated (n=2)		Slide presentation	724	92.1
		Video display	454	57.8
		Photograph display	334	42.5
9. Effectiveness of theoretical courses in distance education (Compared to face-to-face education)		Effective	104	13.2
		Ineffective	450	57.1
		Partially	234	39.7
10. Organization of applied courses in distance education Not stated (n=22) and first-year students (n=279)		Postponed to be conducted in the future (face to face)	98	20.1
		Conducting through distance education	389	79.9
11. Methods/techniques used in applied courses*		Student presentation	254	67.0
		Presentation of lecturers	185	48.8
		Student analysis of films/documentaries/books/news	144	38.0
12. Effectiveness of distance education in applied courses (Compared to face-to-face education) Not stated (n=7) and first-year students (n=279)		Effective	50	10.0
		Ineffective	355	70.7
		Partially	97	19.3
13. Need for the compensation of applied courses in distance education Not stated (n=7) and first-year students (n=279)		Yes	333	66.4
		No	75	14.9
		Partially	94	18.7
14. Deficiencies in professional development arising from distance education First-year students (n=279)		There may be	359	70.6
		There may not be	45	8.8
		Partially	105	20.6

*Line percentage was taken because more than one option was requested in questions 5, 7, 8 and 11.

Table 2. Students' responses in the dimension of infrastructure and access (n=788).

Features of the Dimension of Infrastructure and Access		Frequency (n)	Percentage (%)
1. Devices used in distance education*	Smart phone (personal)	583	74.0
	Laptop computer (personal)	415	52.7
	Desktop computer (personal)	112	14.2
2. How the device is used*	Individual	398	50.5
	Together with two siblings	156	19.8
	Together with one single	131	16.6
3. Suitability of the device used	Suitable	493	62.6
	Not suitable	145	18.4
	Partially	150	19.0
4. Why the device is not suitable* **Not stated (n=8)**	Financial problems	195	67.9
	Lack of information on the use of the device	90	31.4
	The device is out of date/is inadequate	28	9.8
5. Experiencing problems in having access to lessons	Yes	392	49.8
	No	161	20.4
	Partially	235	29.8
6. Problems experienced in having access to lessons* **Not stated (n=1)**	Pause/freeze	535	85.5
	Not having access to lessons due to the problems arising from the system	478	76.4
	Internet disconnection	399	63.7
7. Arrangement of the distance education technical system of the university **Not stated (n=7) and first-year students (n=279)**	It became better	295	58.8
	Nothing changed	158	31.5
	It became worse	49	9.7

* Line percentage was taken because more than one option was requested in questions 1, 2, 4 and 6.

A total of 878 students returned to the online questionnaire, 6 students refused to participate in the study and 872 students filled out the questionnaires. Repetitive answers of 84 students who filled out the questionnaires more than once were identified and removed from the analysis. The answers of 788 students were evaluated in the analysis. **Table 1**

The participants who answered "no" or "partially" to the question related to the motivation to study regularly (4th feature) in distance education were asked "What affected your participation in classes by reducing your motivation to study in distance education?" and when the frequency of the answers given to this question was examined, it was found that the most important factor is "being away from the physical/campus environment of the university" with 73.5% (f:481), followed by "focusing problem problem/lack of attention" with 70.6% (f:462) and "lack of interaction in lessons" with 70.5% (f:461).

Participants who answered that the organization of the applied courses in distance education (10th feature) as effective and partially effective were asked "What methods were used in the delivery of your applied courses in distance education?" and it was determined that the most frequently used method was student presentation with 67.0% (f:254). **Table 2**

When the responses of the participants stating that the device is not suitable or partially suitable related to the suitability of the device used (third feature) to the question "Why the device is not suitable" are examined, it is seen that the most frequently stated reason is "financial problems" 67.9% (f:195).

When the frequency of the responses of the participants stating that they experienced problems or partially experienced problems related to their state of having problems in having access to lessons to the question "Which problems did you encounter in having access to lessons?" is examined, it is seen that the most frequently stated reason is "pause/freeze" 85.5% (f:535), followed by "not having access to lessons due to the problems arising from the system" 76.4% (f:478) and "internet disconnection" 63.7% (f:399). **Table 3**

When the responses of the participants stating that they experienced problems or partially experienced problems related to the state of experiencing problems in synchronous lessons (3rd feature) to the question "Which problems did you experience?" are examined, it is seen that the most frequently experienced problem is "Too long class hours in synchronous lessons" 44.9% (f:157). **Table 4**

Table 3. Students' responses in the dimension of the delivery of lessons and participation in lessons (n=788).

Features of the Dimension of the Delivery of	Lessons and Participation in Lessons	Frequency (n)	Percentage (%)
1. Delivery of lessons in distance education	Fully synchronous	375	47,6
	Mostly synchronous	224	28,4
	Synchronous-asynchronous equally	105	13,3
	Mostly asynchronous	44	5,6
	Completely asynchronous	40	5,1
2. Participation in synchronous lessons* Not stated (n=2)	Listener	318	40,5
	Access to sound (text)	166	21,1
	Access to camera and microphone (Student's own request)	108	13,7
3. Experiencing problems in synchronous lessons	Experienced	203	25,8
	Not experienced	426	54,1
	Partially	159	20,1
4. Problems experienced in synchronous lessons* Not stated (n=12)	Too long class hours	157	44,9
	No breaks between classes	119	34,0
	Failure to record the lesson	115	32,9
5. Availability of the recorded synchronous lessons	Available	573	72,7
	Not available	80	10,2
	Partially available	135	17,1
6. Following synchronous lessons	Followed	422	53,6
	Not followed	128	16,2
	Partially followed	238	30,2
7. Following asynchronous lessons	Followed	346	43,9
	Not followed	154	19,5
	Partially followed	288	36,6

* Line percentage was taken because more than one option was requested in questions 2 and 4.

When the frequency of the responses of the participants stating that they experienced or partially experienced problems related to the state of experiencing problems in exams (2nd feature) to the question "Which problems did you experience in exams?" are examined, it is seen that the most frequently mentioned problem is "not being able to access the exam due to the problems arising from the system" 68.3 (f:362), followed by "short exam time", 68.1% (f:361) and "internet disconnection" 62.1% (f:329).

Benefits from Distance Education and General Level of Satisfaction

When the students were asked about the contributions of distance education to them in terms of theoretical knowledge, professional practice skills and digital literacy skills, they stated that it made the greatest contribution to their theoretical knowledge (36.8%), then to professional practice skills (29.2%) and digital literacy skills (8.5%).

Table 4. Students' responses in the dimension of measurement and evaluation (n=788).

Features of the Dimension of Measurement and Evaluation		Frequency (n)	Percentage (%)
1. Techniques used in exams*	Multiple-choice	730	92.6
	True-false	331	42.0
	Gap-filling	289	36.7
2. Experiencing problems in exams	Experienced	320	40.6
	Not experienced	257	32.6
	Partially experienced	211	26.8
3. Problems experienced in exams*	Not being able to access the exam due to the problems arising from the system	362	68.3
	Short exam time	361	68.1
	Internet disconnection	329	62.1
4. Exam results during the pandemic (Compared to exam results in normal times) First-year students (n=279)	Better	166	32.6
	Same	271	53.3
	Worse	72	14.1

* Line percentage was taken because more than one option was requested in questions 1 and 3.

The students were asked to indicate their general level of satisfaction with distance education they received during the pandemic using a Numerical Rating Scale (NRS) by choosing the appropriate rating between 0 and 10, where 0 means "Not at all satisfied" and 10 means "Very satisfied". The mean of the general satisfaction level of the students was found to be 4.55±2.75, it was determined that the clustering was between 0 and 5 and the state of being dissatisfied was observed more often, although the degree of it changed.

After the Pandemic

After the pandemic ended, students' demands for distance education were also questioned. While the vast majority of the students (70.2%) demanded that all courses be face-to-face, 16.2% demanded that only some theoretical courses be delivered through distance education, 8.5% demanded that only all the theoretical courses be delivered through distance education and 5.1% demanded that all the courses be delivered through distance education.

Qualitative Findings Obtained Through Interviews

The findings obtained from the qualitative dimension of this study, which was carried out with the aim of examining the distance education experiences of students who were receiving formal undergraduate education in the field of child development in public and private universities throughout Türkiye during the coronavirus (COVID-19) pandemic, were gathered under six themes.

Theme 1. From chaos to adaptation: The past and present of distance education

Within the past one year period after the distance education process entered our lives in the context of undergraduate courses, student opinions on whether there has been a change in the process are that there are positive developments in general. The chaotic situation that emerged in the process where an uncertainty prevailed at first left its place to harmony and new routines. At the beginning of the process, it was revealed that there were various deficiencies for both students and academicians in terms of technological habits and course materials. The fact that online systems were just entering people's lives, that both students and instructors did not have experience in using these systems and that the infrastructure of the systems had problems in keeping up with this extraordinary demand that suddenly emerged can be listed as the main reasons for the process to be described as a chaotic situation. This chaotic situation initially negatively affected both the efficient delivery of the lessons and the anxiety levels of individuals. However, over time, instructors have gained experience in using the system, developed new materials suitable for the distance education process, renewed their teaching methods and techniques, and developed mastery in using the system and the infrastructure of the systems has improved and students have been able to adapt to them and all these contributed to the efficiency of the distance education process.

"…At first, we didn't know the system, we were in trouble, we were experiencing stress and anxiety because of concerns such as 'if we cannot access; if we are late for the lesson; if we can't attend it'. For example, some of our lessons were not recorded and we were worried about this. But as the system developed, as we got used to going online, there was no problem as we got used to seeing our teachers on that glass screen, and making online meetings or online thesis meetings with our teachers in this way …" (S1)

Another opinion stated by students is that at the beginning of the distance education, students entered the system with enthusiasm, felt excited when entering the lessons and had a desire to participate, but this excitement and desire were replaced by boredom over time.

"…At the beginning, I was more curious about the lessons as I was wondering how it would happen. I was more enthusiastic. I was taking notes, just as in face-to-face education. But then, from time to time, I gave up taking notes, started to attend classes late, or not to attend at all …" (S7)

Theme 2. Advantages and disadvantages in distance education

Considering the findings obtained in the context of the pros and cons of face-to-face education and distance education, positive aspects of distance education, according to students, are related to attending lessons, following lessons and time spent on lessons. Even if students do not attend live lessons, they do not worry about missing these lessons because they have the chance to watch the recording of these lessons afterwards. As a result, students' first priority is not attending lessons any more. The fact that the lessons are recorded makes the education more accessible and flexible. In addition, since no time is spent on errands such as transportation and personal preparation in distance education, the student has more time for his/her self-development, private affairs and people around.

"…Knowing that there is a recorded lesson there and being able to watch the points I missed again and again and having access to this recording anytime and anywhere give me relief. There was no such thing at school …" (S10)

Students do not feel pressure because they have the chance not to open the camera or not to answer the questions asked when they attend the classes. Another advantage in terms of time is that students have more time as they can listen to lectures whenever they want, so they can earn money by finding part-time jobs.

"…There is something like this, now that most of my friends in my class, most of them, I see they started to work as they do not have to attend classes. Many students think that as it is distance education, they don't need to attend classes but just to listen to the recorded lessons and pass the exams …" (S11)

Another set of advantages of distance education is related to theoretical courses and resources. Through the platforms that universities are members of, the databases that have been made accessible globally, and the resources shared by instructors, it has become easier for students to access the information in the theoretical courses. Thus, students have been oriented to do more research in the theoretical courses, both as a result of the ease of access to these resources and due to the requirements of the assignments given by instructors. This ensures that the student's theoretical gains increase, and if the student really puts effort, these opportunities make distance education advantageous for theoretical courses.

"…Other than that, as I said, the aspects that I think are useful are that universities such as Harvard and Oxford allowed students from other universities to watch their lessons or here are the agreements made by the school with edX, the resources opened in this process, some paid articles made completely free; these were very advantageous and very useful for me …" (S1)

Another advantage of distance education is the change in grade point average and evaluation methods. Alternative methods are used for evaluation in distance education and a guideline about the evaluation is shared at the beginning of the semester. In the distance education system, the homework method is more preferred for the evaluation of students. In this connection, the fact that the evaluations are made with homework is considered as an advantage for students, both because the momentary panic during the exam is eliminated and because it contributes more to professional development by encouraging students to do research. Although it is considered as a disadvantage for those who claim that they make more effort and work harder than others both in the face-to-face and distance education process, the increase in their grade point averages is another plus for the students in general (Findings in this context are explained in more detail under the heading of the evaluation theme).

"…But there may have been an advantage of this process, because as I said, it is not an exam, but homework, I loved it incredibly, that is, I loved that system very much because the exam never seemed to me as a tool to measure complete knowledge or success because of the panic or some things that did not come to our mind at the time. So okay, yes we are working, we know, but we can forget about it, there may be stress, but homework is not like that. We are totally ourselves there. Whatever we have researched and know can be displayed in homework and then we get grades. That's why I think it's more useful in that sense …" (S1)

Other headings listed by the students as the benefits of distance education are that it facilitates instant communication and contact with instructors, increases the student's skill and speed of using technology, provides the opportunity to access possibilities that cannot be found in face-to-face education, the opportunity for a more quality evaluation of student works and an obligation for both students and instructors to develop their creativity.

When the findings on the advantages of distance education are examined in general, it is seen that when the conditions are mature and all parameters (access to technology, internet, resources, etc.) are in place, taking theoretical courses through distance education does not cause any disadvantage, on the contrary, it becomes more advantageous in various aspects compared to face-to-face education. However, this is a preferred and advantageous method only when it is considered as a part of a hybrid model in the theoretical courses together with face-to-face education.

"…I think that distance education is harmful for applied courses as we cannot find any opportunity to practice. But on the other hand, I think that distance education is more beneficial in the theoretical part as long as there are recorded lessons and we can watch them whenever we want, and lesson hours are long. …" (S11)

The biggest pattern emerging in the disadvantages of the distance education process is related to the applied courses. According to the students, the applied courses either could not be conducted or were postponed to be carried out in the normalization process or were pretended to be carried out. Due to the failure in the full realization of the normalization process, the applications that were postponed to be carried out during face-to-face education were again presented to students as "as if" applications during the so-called normalization process. The inability to perform applications face-to-face and the lack of opportunities to work with children resulted in the loss of experience in students, which directly caused anxiety about professional competences.

"…What can I say about the application anyway? We've lost a lot. We haven't seen anything; we don't know anything. You know, when we have graduated, we will start a job in an institution like a fish out of water; I have lost a lot in that respect …" (S8)

In addition, another pattern emerging in the negative aspects of distance education is getting lazy and fighting against the biological clock. The students stated that they lost their motivation and became lazy due to the disruption of their routines and adaptation problems, that day and night were mixed with each other and that this situation negatively affected them both psychologically and physiologically. Loss of both knowledge and motivation due to the fact that the lessons cannot be taught interactively is another finding.

"…All my sleeping patterns were disturbed, of course, I always did these at night and I slept until noon of the day …" (S5)

"…As a disadvantage, as I said at the beginning, I couldn't get much efficiency and pleasure from online education because I like to learn socially, I like to learn by experiencing and I like to participate actively in the lesson ..." (S6)

Another disadvantage of distance education is that students are deprived of the social life they have established in the context of university, which makes their lives monotonous.

This situation also negatively affects students' "perception of real studentship". Other disadvantages of distance education can be listed as follows; distance education causes problems that can lead to postural problems in students, students who deserve really high grades describe the process as unfair because everyone's grade point average is increasing, although it is/seems to be an advantage, each instructor has a tendency to think that his/her course is the only course students are responsible for and thus gives a lot of homework to make the educational process more efficient for students, causing students to have a time problem, the decrease observed in the motivation of instructors due to communication problems brought about by the online process, problems experienced in having access to technology and the internet, the low participation of the students in the lesson and their not opening their camera and microphone. The last situation, which is considered to be a disadvantage of distance education, is the anxiety/risk of not being preferred for employment in the private sector after graduation.

"*…I think we are physically damaged because we are in front of the screen for too long. We will have health problems in our back, eye and leg because our movement is very limited. Apart from that, I think the biggest problem is that we cannot socialize …*" (S9)

"*…But in relation to applied courses, I can say that I am really afraid. They may think that this person studied during the pandemic and might not want to employ me because of my lack of experience in practice, we can be confronted with such prejudices …*" (S7)

When the positive aspects of face-to-face education according to the students are examined, the general pattern is that face-to-face education is associated with socialization. The face-to-face education process makes socialization possible both directly and indirectly. Through face-to-face education, students have the opportunity to meet with their fellow students, participate in sports activities and group and club activities. In addition to socialization, other advantages of face-to-face education are listed as the fact that the lessons are taught in an interactive way in face-to-face education, this interaction makes learning more permanent, increases the opportunity to focus on the lesson and provides social learning.

"*…So it was like that in general. If there are things that we can do after school, such as coming to the dormitory, having a rest, eating, then spending time with friends, going out or doing something in the dormitory. Here we were going to painting class. Then the group had activities, I was organizing them, we were making them happen. To have fun and to spend quality time in this way …*" (S6)

"*…Peer teaching also occurs, after all, we chat and share information with my friends …*" (S9)

"*…We used to engage in lessons in an interactive way. That is, when the teacher said something, we could interrupt and say something. We were able to find answers to our questions. Unfortunately, nothing like this happened online. We could not find answers to our questions …*" (S5)

The findings presented as the disadvantages of face-to-face education are generally related to time. Students claim that reaching face-to-face education requires a lot of time.

"*I mean, in general, I can say that, for example, I will wake up early in the morning, there is an hour's distance between the school and the dormitory where I live, between Keçiören and Beştepe. That's why, you know, the class was at 8.30, I had to get up and leave at 6.30 or 6 the latest. And after a while, of course, this could create fatigue and unhappiness in me …*" (S1)

Theme 3. Theoretical lessons and applications: Two pans of the scale

The child development formal undergraduate education courses are grouped under two headings. One of them is theoretical courses and the other is applied courses. When the students were asked to evaluate the courses in these two contexts in terms of their professional development, they stated that the applied courses contribute more to their professional development. According to the comments of the students, the theoretical courses are mostly constructed by the individual's own efforts because the student can develop his/her theoretical knowledge outside the class hours (by reading, doing research). For this reason, applied courses are considered more valuable by students. Theoretical courses form the infrastructure of the application process, develop a philosophy in the student and prepare the students for the application process. Applied courses, on the other hand, require students to come into contact with children and families. Students have the opportunity to observe and work with children of different profiles and their families (in the hospital, special education center, pre-school education institution, etc.) within applied courses. In these courses, in which children are observed and applications are carried out by using the knowledge gained in the theoretical process, students have the opportunity to synthesize their theoretical knowledge and use it in different events, situations and with different children. The more theoretical knowledge has been mastered, the more success is achieved in applied courses. In this context, although the applied courses contribute more to students in a professional sense, the theoretical and applied courses together complement each other like two halves of a circle and feed each other.

"*…So in theory, nothing happens as we have learned, different from what we are confronted with in the field, particularly while working with people, children. You know, because there is no certain formulation, everything is specific to the family or the child. So in theory, yes, we learn some basic things, but it doesn't work in practice, so it's different. That's why I find applied courses more important, I think their number should be increased...*" (S2)

"…They complement each other like a circle because we try to put what we have learned in theoretical courses into practice ..." (S6)

"…Raw information. I can learn a lot, read a lot. My sister, who is attending a different department, can read and learn this, too. But since I don't think it will have any contribution unless I put it into practice, I think that applied courses are a bit more important for me …" (S8)

Theme 4. Applications that are the lifeblood of child development undergraduate education: How can they be carried out in face-to-face and distance education systems?

Student views on the applications carried out in face-to-face education can be grouped within three contexts. These are; the way face-to-face applications are carried out, the opportunities offered by face-to-face applications to students and the contribution of face-to-face applications to professional development. When we look at the context of the way face-to-face applications are carried out, first of all, it should be said that there is no negative opinion about this context. The face-to-face applications start by making observations in an institution/organization chosen specifically for the teaching practice course, and in these applications, students do not only work with children. Child development undergraduate students conduct the application process with both children and their families in face-to-face applications. In this process, after the observation, students use their theoretical knowledge to prepare and implement developmental support programs for children and carry out activities with children/families. The reporting made after the completion of the applications is not only for children. In addition to evaluation reports prepared for children at the end of the applications, students also prepare a report on the development support programs/activities they have prepared and the physical facilities and environmental characteristics of the place where they have conducted applications. Moreover, in face-to-face education, applications are conducted in groups the number of students in which is determined depending on the conditions of the place where the application is conducted so that the efficiency can be increased.

"…In other words, we were observing and taking notes in the presence of a child development specialist, in a classroom or in the presence of a special education teacher. It actually contributed a lot to us to see how things happen in practice because who is doing what and not everyone goes to one place. There were those who went to ....., there were those who went to other hospitals, the city hospital and so on. It has been very useful for us to be able to talk about these issues even among our own groups, about what we are doing in such institutions …" (S1)

When the opportunities offered by face-to-face education to students, these opportunities are generally collected under the theme of "experience". Students who make observations first, then have the chance to evaluate the facts and implement a training program / activity by integrating the theoretical knowledge they have acquired in different courses.

Students who see different cases have the opportunity to observe multidimensional applications and then to be actively involved in these applications. Applied courses offer students the opportunity to see how other child development professionals work and what they do, to get to know the evaluation tools used by child development experts, to witness their practices, and to examine their materials. Because of the diversity of applied courses and the differences in the places where they are conducted, students gain experience of being with children having different needs in different environments (hospital, pre-school institution, care center, etc.) and preparing programs to meet these needs. Students share their experiences among themselves and offer social learning opportunities to each other. In this process, by sharing the question marks in their minds with instructors, they have the opportunity to solve the problem and at the same time, get to know their own skills and realize the skills that need to be developed. With the completion of the application process, the acquired knowledge and skills become permanent. In addition to these contributions to the formal process, the applications also offer students the opportunity to gain experience in professional environments in contexts such as the concept of overtime, corporate culture, professional discipline and working in cooperation with different disciplines.

"…I've seen some assessment tools. I saw Bayley. Bayley was used there to assess infants generally. I saw it. I had a chance to see some of its materials. After that, I saw the environment. Then I saw the observation room for the first time. You're standing in that glass room. Those at the back do not see you, but you see them and you can let your voice be heard whenever you want. So this experience was actually nice. It seemed different to me; it was something I saw for the first time …" (S2)

In the last context, which is the relationship between face-to-face applications and professional development, the whole pattern is built on "self-confidence", which is connected to experience. As a result of the experiences gained in face-to-face applications, the professional self-confidence of students increases. Students who have the opportunity to weigh themselves in terms of professional knowledge and skills during the application process have the opportunity to realize how competent they are to support a child and what clinical skills they need to develop.

What comes to the fore in the findings regarding the applied courses/teaching practice carried out by students during the distance education process is the way the applied courses/teaching practice are carried out and the negative situations experienced.

When how the applied courses/teaching practice are carried out in the distance education process is examined, the first striking data is the lack of unity of application both among the instructors and among the universities. The general opinion of applied courses/teaching practice is that they include applications pretended to be conducted.

Within the context of applied courses/teaching practice, programs are prepared, activities are written but not implemented, they are just pretended to be implemented and just reported. For this reason, the applications pretended to be made in applied courses are not much different from what is done in theoretical courses.

"…We had tasks such as "What would you do in this situation if you were in a real classroom environment?" to reinforce the information we have learned in theoretical courses. In fact, we were asked to do some tasks as if we had been in a real classroom although we weren't…" (S10)

The strongest aspects of the way the applied courses are carried out are the guests invited for the applied courses/teaching practice and the case presentations/discussions. The information and cases shared by the guests are listed as the most important methods that contribute to their professional development in the distance education process. Apart from these, there are applications that students perform informally with their own efforts, and these applications contribute positively to their gaining experience and the development of their professional self-confidence. However, as it was said, these are informal experiences that students make with their individual efforts, so they are not generalizable and are far from the unity of practice.

"…Every week a different guest came to our lesson. This was very supportive. There were quests from hospitals, special education institutions and they shared their experiences about real cases so we could find answers to many questions in our minds. We were able to see that there are some contradictions between theory and practice. Yes, this was really useful …" (S6)

When the negative aspects of the applied courses carried out in the distance education process are examined, it is seen that students are of the opinion that such applications cannot go beyond the theoretical education, that sufficient experience cannot be gained even in the applied courses/teaching practice where only observation is made and that as there is not much feedback, students cannot correct their mistakes and they need to put forth a lot of individual effort to gain some experience.

"…In this regard, our advisors, instructors are very important to us but some teachers give feedback while some other don't. My teacher was giving very useful feedbacks. That's why I was very informed, I mean, he/she showed me the wrong and right things with feedback …" (S2)

Theme 5. Evaluation process in distance education: How were you evaluated?

In the distance education process, although the instructors followed different methods and techniques in order to evaluate the success of students, the most preferred way of evaluation was homework. In addition, online exams (classical, multiple choice or mixed), quizzes, group work were other methods used, but the rate of preference was much lower than homework and these methods were usually accompanied by homework. The opinions of the students about all the methods used in this context are that the use of homework generally allowed for a more accurate and healthy measurement and evaluation. If the assignments are planned in a way that contributes to the professional development of students, then the process of preparing homework becomes advantageous for students. In addition, assignments force students to do research, so that they gain more experience in terms of doing research accurately and developing accurate reporting skills. However, this point of view changes in online exams and many different parameters other than what is taught in the class affect the process. The first of these is the possibility of the student getting low grades regardless of knowledge and learning due to possible technical problems, and this creates anxiety on students. This anxiety, on the other hand, causes a weakening of the adaptation process to the exam, even if there are no systemic problems. Factors such as the short duration of the exam and the problem of focusing are also listed as the disadvantages of online exams. Another finding is that the online exams, which are short-term and panic students, do not measure knowledge correctly.

"…The exam method; it took twenty minutes. How it happened, I didn't understand. But since I revised well, it was good. But I think there is a downside to this method: there is a high probability of cheating from other sources in the exam. Therefore, it is not possible to distinguish between the students who study hard and not. Yes, I really studied hard, but I saw a lot of people who got the same grade without studying. I don't think there is not much distinction made between students. But it is not like this in homework because most of the time, we are asked to express our own opinions in homework …" (S3)

In addition to these general judgments, no matter how the evaluation process is operated in distance education, the general opinion of the students is that the evaluations made in the distance education process are not fair. The main reason causing this unfairness is thought to be the "student-friendly" attitudes of the instructors to close the gap between the students who study hard and the students who do not. For this reason, they tend to increase group averages unnecessarily and it works against the student who deserves to get a really high grade. Another situation that makes the evaluations unjust and open to abuse is that cheating is common in online exams and this preferred evaluation method allows it. The possibility of cheating also negatively affects the motivation to revise for the course.

Although this possibility exists in homework, some instructors reduce this possibility through plagiarism programs.

"…So, for example, with the online exam method, you know that cheating is really easy … As for homework, everyone does their homework, of course they send it. But in this process, I think they don't want to give very low grades, as far as I understand. They're giving a bit higher grades. So I think we passed very easily. For example, I do not think that there is much difference between those who try hard to do their homework and those who do not. This makes me sad because I'm trying, you know, to get higher grades. I'm thinking that I am treated unfairly … So some of our teachers use Turnitin for example, which should be used by every teacher …" (S2)

Theme 6. Meaning of education: What does education mean? What determines quality?

The way students make sense of education also changed during the distance education process. In the face-to-face education process, "education" is conceptually defined as communication, interaction, togetherness, and interactive process. In distance education, on the other hand, "education" is considered more superficial and unimportant. It is also seen as a process where loss of experience occurs. In order to reach instruction in distance education, besides the individual's own effort and willingness, many different parameters must be compatible at the same time. It is very difficult to participate in distance education in a healthy way and to teach interactively, so that there are many different factors that can distract attention. Distance education may result in an antisocial life. In addition, one of the reasons for the loss of motivation in distance education is the lack of other elements of communication (eye contact, gesture, mimic, etc.) other than verbal communication and the difficulties in being involved in the lesson instantly.

"…I'm a bit of a person, you know, enjoying contact, as I said, I even touch things. That's why it is very important for me to see the teacher and feel the teacher. I can't feel it right now. It is a loss for me because I can't concentrate; I already have an easily distracted attention … But I don't remember any time in my life that I have had such a hard time in listening to a lecture, in motivating myself and directing my attention to it. Well, because there's an ad, something pops up, I'm saying 'let's have a look at it right away', and then I suddenly realize that the lesson is over. Or my mother is calling, I am looking at my mother. Or someone comes, something happens because we are a big family. That is, someone is coming, this is happening, that is happening, we are going somewhere. I couldn't listen to the teachers …" (S8)

The quality in distance education has been associated with the extent to which "active participation" is ensured. Lessons' being taught interactively contributes to the accomplishment of objectives without a loss of learning in general. Asking students to prepare before the lesson is also a method that positively affects productivity. In addition, the quality of distance education differs from course to course, from instructor to instructor, from university to university.

Many factors such as the attitude and interest of the instructor, the richness in the methods and techniques used, the online access opportunities offered by the university, the number of students taking the course determine the quality of distance education, the attendance and interest of the student. The comment made specifically for theoretical courses indicates that distance education is carried out in a healthy way when the opportunities (shared resources, access opportunities, etc.) are provided in combination with the individual efforts of the student. Another point that affects the quality in distance education is the state of having taken face-to-face lessons with the instructors before. While it is both easier and more efficient to take courses from the instructors of the department in the distance education system, taking courses from the instructors coming from other departments affects the efficiency of the course negatively. At the same time, courses taken face-to-face before the distance education process were found to be useful by students in laying the foundation and establishing communication channels necessary for the effective conduct of distance education.

"…Of course, there may be differences from lesson to lesson, depending on the way the instructor teaches the lesson. Some of our teachers think that student participation should play an active role in the instructional process, so they give weekly assignments, organizes group works, etc. Some instructors prefer just to lecture. Of course, I think it is good for us that this is being done, because we are actively participating in it. In that sense, I think it changes from lesson to lesson …" (S1)

"…It changes from teacher to teacher, now some teachers are really good at involving students in the lesson. He/she teaches the lesson very lively, asking us questions. When he/she asks a question, I will have to be in front of that screen 'the teacher can ask me at any time, I have to wait, let me listen so I don't miss it'. But some teachers open the slide, explain, it's a time for me to play the game anyway, it won't interfere with me in any way. The teacher does not even look at who has already been in the system and who has participated. He/she just lectures and then goes …" (S9)

Discussions, Conclusion and Suggestions

During the COVID-19 pandemic, distance education experiences of both students and faculty members in many fields within the scope of higher education have been investigated.

One of these studies was carried out in order to determine the problems experienced by nursing students and their solution proposals about distance education. The results of the study revealed that, similar to the problems experienced in the current study, nursing students also stated that they experienced problems that can be characterized by the themes of "problems in the distance education infrastructure of the university", "the lack of face-to-face education", "limited opportunities", "emotional state caused by the pandemic" and "exam anxiety" (Kürtüncü & Kurt, 2020). The findings are discussed under the headings presented in the previous section.

Educational Process Dimension

In the pandemic, where distance education is experienced intensively, more than half of the students (55.4%) evaluated the course load more intensely than in normal time, 80% of them said that distance education reduced their interest in lessons and almost half (47.6%) stated that distance education negatively affected their motivation to study. Acar-Ciftci (2020) also emphasizes that adding new subjects and courses to complement the curriculum may cause students to perceive the instruction given during the pandemic more intensely than normal time, since faculty members need to keep the course durations shorter as recommended by the Higher Education Council. These reasons and findings are consistent with the current study. In addition, as Bates (2020) suggests, in line with the shortening of the lectures and covering only the main lines of the topics, students should take more responsibility for learning thus they should read or research more, which may have caused this period to be perceived as more intense by students. It is stated that learners can overcome this responsibility with learning planning and time management, otherwise these increased responsibilities will turn into one of the limitations of distance education (Gürer, 2020).

Among the factors that negatively affect the students' motivation, their being away from the campus environment was stated to be the most important factor (70-73.5%), followed by their experiencing focusing problem and their lessons' not being interactive. About half of the students (49.5%) reported that they did not follow the required courses continuously. In addition to the course intensity, the fact that the methods and strategies used in the lessons are in the form of lectures or presentations with slides, and the decrease in the lecturer-student and student-student interaction seem to have caused students to leave the lesson in a short time, not to prefer to enter the lesson again and to lose their motivation to study, as reported in the study of Acar-Ciftci (2022).
Tekinarslan and Yavuzalp (2020) also point out the loss of motivation as the biggest obstacle to the learning of students effectively and efficiently, especially in distance education environments, and they draw attention to the fact that students cannot meet face-to-face with faculty members and other students and take more responsibility. Studies emphasize that interactive online courses with active participation of students increase motivation and foster achievement (Nieuwoudt, 2020). In another study conducted on nursing students, it was determined that distance education negatively affects the learning processes of students and it is not sufficient for a department that provides practical education to provide distance education (Çelik Eren et al., 2021).

The results of a qualitative study conducted on nursing students in Croatia during the pandemic revealed that students had a lack of motivation, concentration impairment and difficulty in remembering, which made learning difficult (Lovric et al., 2020). Similarly, the results obtained from the studies conducted during the previous pandemics revealed that during the pandemics, students in health professions generally experienced a decrease in concentration and difficulties in learning, which had negative effects on their academic achievement and led to avoidance from learning activities (Al-Rabiaah et al., 2020).

In this dimension, in addition to the cross-sectional picture captured with quantitative data above, the situation revealed by the qualitative data is discussed under the themes of "From Chaos to Adaptation" and "Advantages and Disadvantages". The production of solutions that made the continuation of education possible at the beginning of the process through transition to emergency distance education gave rise to hope that distance education could be delivered in all education systems. However, as we this new method was experienced and more effort was required to get used to this method individually or institutionally, chaos started to replace hope. In addition to the effect of the pandemic on the professional or educational lives, the clarification of its effects on human health and psychology also contributed to the development of chaos. Inevitably, the readiness of each individual to the pandemic has been at different levels due to all these reasons. While the fact that distance education was better than not being able to receive any education may have facilitated the process of coping with the pandemic, the negative answers to the questions of how well the targets were met over time in higher education and at what level students perceived this distance education as a real education may have made it difficult to cope with the pandemic. Similar to the results of the current study, nursing students also stated that they had problems in adapting to the distance education system (Vatan et al., 2020).

The opportunity to watch the lessons later again and again, saving time by eliminating time-consuming activities such as transportation, allowing better time management (offering the opportunity to get a job, etc.), increasing number of accessible platforms and resources, giving students more responsibility to develop themselves in the course, an increase in grade point averages and development in digital literacy skills were reported to be the advantages of distance education by students.

Despite these advantages, the biggest disadvantages of the distance education process were found to be related to the applied courses, which caused the students' feeling anxious about the development of their professional competences and gave rise to the demand for compensation for the applications. In the context, students pointed out that due to the adaptations made for distance education and the change in the learning model, the course load during the pandemic became more intense than normal time, that applied courses, on-site observations and feedbacks were not postponed rather delivered superficially on screen and that their dream of working with clinicians and children was terminated.

Other disadvantageous situations mentioned by students can be listed as follows; being physically and socially away from the campus environment, difficulty in adapting to a new order as a result of the change in routines, the limitation of active life as well as the negative effects on general body and especially eye health and lack of interaction with instructors and peers, leading to decreasing attention span, motivation and social learning.

The theme of "Theoretical Lessons and Applications" obtained from the qualitative dimension of the study and the theme of "Applications that are the Lifeblood of Child Development Undergraduate Education" were also discussed under the heading of the educational process dimension. According to the comments of the students, while the theoretical courses allowed students to continue to learn about any subject on their own (by reading, researching, etc.) outside the class time, the applied courses were the courses in which it was not possible to repeat any experience already lived. For this reason, applied courses are considered more valuable by students. However, it should not be forgotten that the theoretical and applied courses complement and feed each other. The profession of child development requires the interpretation of the stories in the light of scientifically proven information and the adoption of different approaches that allow blending theoretical and practical gains according to the individual characteristics of children and their families, the events and situations they have experienced. As students gain experience through practices, their professional competence and self-confidence develop.

The strengths of the applied courses conducted during the pandemic with distance education were stated to include the quests invited to lessons and cases presented by these quests. The weaknesses of the applied courses carried out in the distance education process were stated to be that there was no unity in applied courses between universities and instructors, that the process was not much different from the process followed in the theoretical courses, that the students could not experience clinical skills and that they could not receive feedback on the skills that should be used in their professional lives. The general opinion is that the efficiency of the applied courses conducted through distance education is far behind the efficiency of the applied courses conducted face-to-face.

Similar to the Child Development students, nursing students also stated that they experienced intense anxiety about how the applied courses would be taught, that being away from the practice area would prevent them from learning in the field, and therefore, that conducting applied courses with distance education would not be the right option for practice-oriented departments such as nursing. Especially, senior/intern students who took only applied courses during the academic year stated that it was not possible to deliver applied courses through distance education (Kürtüncü & Kurt, 2020; Vatan et al., 2020). Faculty members in the nursing department also consulted vocational education associations on how to increase the quality of distance education courses during the pandemic, how course evaluations should be made, whether applied courses could be held in hospitals and how to graduate senior/intern students and expressed their needs on these issues (Vatan et al., 2020).

Infrastructure and Access Dimension

During the pandemic, the great majority of the students (74.0%) participated in distance education via their smart phones. While half of the students participated in lessons with a device they used individually, the other half could attend the lessons with the device they had to use jointly with one or more family members. Of the students, 37.4% stated that the device was not partially or fully suitable for distance education and the main reason for this was stated to be financial inadequacy (67.9%). While nearly half of all students had problems in accessing the lessons, it was learned that these problems were mostly caused by pauses/freezes, inability to access the lesson due to the problems arising from the system and internet disconnection and the rate of improvement in the technical systems of universities for the solution of the problems was reported to be 58.8%. The issue that nursing students focused on the most was the inadequate distance education infrastructure conditions of universities. Students had difficulties in entering the system and following their lessons due to insufficient infrastructure conditions (Kürtüncü & Kurt, 2020).

According to the distance education evaluation research conducted on METU students during the pandemic, it was determined that students needed a computer/mobile phone with a higher capacity by 28% and a strong internet access by 44% (ODTUMİST, 2020). In a qualitative study conducted with 24 students with the purpose of learning the experiences of university students regarding online teaching, similar to the findings of the current study, it was found that students had problems in accessing devices and the internet,

that students and faculty members were not competent in using technology, that most of the students had to attend classes with a smart phone and that they gave up watching the lessons because of the slow internet connection (Acar-Ciftci, 2022). The problems experienced due to the lack of technological infrastructure cause disappointment in the learner and are among the reasons for their leaving the course/program (Falowo, 2007).

When the quantitative and qualitative data were examined together, it was determined that the infrastructure and access problems that came to the fore in the quantitative dimension of the study were not much mentioned in the qualitative dimension; instead, students mostly focused on the content of the courses. Despite the fact that half of the students did not have an individual device to access the courses, indicating their financial inadequacies, and the device of approximately one third was not suitable enough for distance education, they did not bring this aspect to the forefront in the qualitative interviews, may indicate that they believe that this problem should be solved by them individually. On the other hand, as a result of a qualitative research conducted in 2015, universities offering distance education services stated that they had problems with slowdown and freezing, and in the process of creating and presenting tape recordings of lessons, especially due to the high participation rate in synchronous video-based courses (Bilgiç & Tüzün, 2015).

Delivery of Lessons and Participation in Lessons Dimension

When the findings regarding the teaching of the theoretical and applied courses were examined, it was seen that 56.4% of the theoretical courses were taught using course materials and with the camera open, and that slide presentation (92.1%) and then video presentation (57.8%) were preferred as course materials and that the most preferred method used in applied courses was student presentations (67.0%). However, Dixson (2010) stated that distance education students found practical activities, discussion forums, laboratory and group works, research articles and activities related to current events, in which concepts are adapted to case studies or problem solving processes, more interactive and participatory rather than reading, watching slide presentations, or passive video lectures. Applied courses were postponed to be conducted in the following terms in order to be held face-to-face at a rate of only 20.1% in the sample while 80% were carried out through distance education.

When they were asked to compare the effectiveness of the courses during the pandemic and normal time, it was stated that the theoretical courses delivered through distance education were ineffective by 57.1% while the applied courses delivered through distance education were ineffective by 70.7%.

In addition, 66.4% of the students stated that they needed compensation for the applied courses and 70.6% of them stated that they were worried that they might experience inadequacy in their professional development due to the distance education process after graduation.

When the findings were examined in terms of participation in the lessons, the rate of the courses that were carried out completely synchronously in the distance education process is 47.6%, and the rate of experiencing problems in these courses is 25.8% as the lesson hour in these courses was too long (44.9%), there were no breaks (34%) and the lessons could not be recorded (32.9%). Only 13.7% of the students stated that they attended the synchronous classes with microphone and camera access at their own discretion. The rate of later access to the recordings of synchronous lessons is 72.7%. While the rate of following the synchronous lessons was found to be 53.6%, it was found to be 43.9% for the asynchronous lessons. When these findings were interpreted in the light of qualitative data, it was understood that the way the lessons were taught affected the participation of the students.

Communication problems brought about by the online process, the problem of accessing technology and the internet, and both faculty members and other students not turning on their camera/microphone, as well as teaching methods that limited interaction seem to have adversely affected student participation. It can be said that the low participation of the students in the lessons and their not turning on their camera / microphone may have adversely affected the motivation of the faculty members.

The findings of Acar-Ciftci (2022) concur with the findings of the current study as she also found that the students did not turn on their webcams and were reluctant to attend the classes because the strategies used in the learning-teaching process were not suitable for classroom interaction. The students also stated that they were bored in the lessons because the length of the lessons, especially in the theoretical lessons, distracted them, and their desire to return to the lesson decreased due to the long breaks between the lessons. For all these reasons, the students stated that they mostly did not attend the classes, and when they did, they turned on their computers or phones during the classes, even if attendance was not taken, but turned off their cameras. In both studies, it was learned that the students were willing to attend the classes in the first days of the synchronous online education, but they gradually lost their desire as attendance was not taken and the fact that the cameras were not required, and that they thought that attendance should be included in the assessment and the camera should be turned on in order for the lessons to be more effective and efficient.

This finding supports the inference of Rossman (2000), which is one of the implications for adult education in distance education environments, that learners need to see each other's faces and that auditory communication alone is not sufficient, and that it should be enriched with visual communication. In the light of the findings of studies on online teaching in terms of teaching and participation in classes, it is emphasized that even though students interact with the content asynchronously, synchronous lessons in which they participate only by listening will be more effective if in-class interaction can be provided (Acar-Ciftci, 2022; Coman et al., 2020; Farooq et al., 2020; Pala & Erdem, 2015).

Measurement and Evaluation Dimension

The qualitative findings of the study presented under the theme of "Evaluation Process in Distance Education" revealed that the homework method was preferred more than exams in the evaluation of course achievement in the distance education process. When the quantitative findings related to the measurement and evaluation dimension were examined, it was seen that the exams were prepared as multiple choice at the highest rate (92.6%) and the problems experienced in the exams were found to include problems arising from the system (68.3%), short exam duration (68.1%) and internet connection problems (62.1%). While 53.3% of the students evaluated their exam results taken during the pandemic the same as the exam results taken in normal time, 32.6% of them stated that their exam results taken during the pandemic were higher than the exam results taken in normal time.

When the qualitative and quantitative findings were analyzed together, it was found that students made themselves active in this process, gained experience in research and accurate reporting skills and that faculty members preferred homework more to evaluate their students to eliminate exam stress that might be caused by factors such as technical problems that may occur in the online process, the problem of focusing in the digital exam environment, the possibility of cheating in exams when appropriate precautions are not taken and lack of time. However, students stated that they found the homework traffic, which they experienced more intensely during the pandemic as it can close the gap created by distance education and provide the opportunity to control plagiarism with digital programs, more challenging. In addition, the students, who stated that the averages were higher during the pandemic than normal time due to the evaluation process regardless of whether it was through an exam or homework, emphasized that the difference between the students who study hard and the students who don't disappeared and this situation led to unfairness in the evaluation.

In the distance education process, it was seen that the problems related to measurement and evaluation were also mentioned in the study conducted on nursing students in various platforms (Vatan et al., 2020). In a qualitative study conducted with twenty-four university students, the students stated that they could easily cheat in online exams and had some problems with self-regulation skills.

However, although the students preferred homework to exams, they thought that the process should be improved since the faculty members did not use rating scales and did not give feedback to the assignments in the evaluation process (Acar-Ciftci, 2022). Dixson (2010) argues that through discussion forums, peer assessment, and feedback on assignments, students' participation in classes and their level of knowledge can be increased. Feedback should not be considered as a form of communication that only follows the written or oral evaluation process. Feedback can be given in different forms such as retelling the subject with a different example or point of view upon feeling that the learner has not understood the subject, and solving more questions on this subject upon receiving a very limited number of correct answers to a question asked to the whole class. The learner needs to receive feedback in order to understand why the information is true or false (Durdu, 2020). This issue was also addressed in the qualitative sample of the current study and the need for feedback was expressed. As a result, giving feedback is a process difficult to manage, but very important in distance education. It has also been shown that there is a significant relationship between the learners' perceptions of corrective feedback and their attendance (Durdu, 2020).

Benefits from Distance Education and General Level of Satisfaction

When the contribution of distance education to students was questioned in terms of their theoretical knowledge level, professional practice skills and digital literacy skills, it was determined that the highest contribution (36.8%) was made to their theoretical knowledge level and the lowest contribution (8.5%) was made to their professional practice skills. This finding also concurs with the qualitative data presented under the theme of "The Meaning of Education" in the current study and students matched distance education with loss of experience. Another situation that affects the quality and thus the satisfaction in distance education is the provision of face-to-face education opportunities and the creation of communication channels before distance education. This reveals the importance of blending face-to-face education, which is a traditional learning method, and distance education, that is, blended learning, instead of distance education alone. In a study examining the effects of interaction with faculty members in higher education institutions during the pandemic, it was determined that 61% of the students were in interaction with the instructor who taught the course and that these students' attitude scores towards distance education were higher than other students (Altuntaş Yılmaz, 2020). Moreover, as a result of a study conducted on 980 university students who had experience of distance education by using the online survey method, it was found that in addition to interacting with the instructor, the characteristics expected by students from the instructor were listed according to the frequency of mentioning as follows; adequacy of technological knowledge/competence, helping the student to concentrate, motivating the student, explaining the essence of the subjects and a dynamic and lively way of lecturing (Kuyucu, 2021).

The average level of satisfaction of the students was found to be 4.55±2.75, and it was determined that the agglomeration was between 0 and 5 and there was a more tendency to be dissatisfied, although the degree of it changed. In this context, when the general satisfaction level of the 2nd, 3rd and 4th year students who completed some or most of the undergraduate process with face-to-face education (4.49±2.72) and the general satisfaction level of the 1st year students who encountered distance education in their first year (4.67±2.81) was compared, it was seen that the average level of satisfaction of the students who started the education process with distance education is higher. In addition, in the current study, the students were asked "Can the distance education application be called student (friendly) centered? Only 13.7% of the students answered 'yes' to the question, 46.6% 'partially' and 39.7% 'no'. In the study conducted by Çelik Eren et al. (2021), the satisfaction level of nursing students from distance education was found to be medium. When the findings of these studies are evaluated together, it can be concluded that there are points that need to be improved regarding distance education.

In a qualitative study conducted by Lovric et al. (2020) with 33 nursing students studying in Croatia, it was determined that all of the students were satisfied with the university's infrastructure for distance education, planning and organization of education. It was revealed that the factors contributing to this satisfaction of students include the delivery of only theoretical courses through distance education but postponing of applied courses to be conducted later and the effective measures taken to protect the faculty, students, teachers and the wider community.

In the current study, it was noted that students did not mention 'student support services'. In future research, it is recommended to examine support services within the framework of administrative support, instructional support, technical support, counseling support, academic/educational support and library support. In addition, 3.7% (n=29) of the students participating in the current study are students with special needs. Thus, difficulties experienced by students with special needs in different fields should be addressed in the distance education process and the regulations should be expanded to include each student. This issue was addressed and applied solutions were shared in the Handbook for Students with Disabilities in Higher Education in the Pandemic Period published in November 2020 by the Izmir Universities Platform Barrier-Free University Operation Group (Izmir Universities Platform Barrier-Free University Operation Group, 2020).

After the Pandemic

When the students' demands for distance education after the pandemic ended were examined, it was determined that the vast majority (70.2%) demanded that all courses be face-to-face, whereas only 5.1% demanded that all courses be through distance education. When the distribution of the students (n=40) who demanded that all of their courses be through distance education was examined, it was seen that first-year students demanded it the most (45%). The reason why they want all courses to be taught via distance education may be that these students have higher satisfaction levels than students from higher grades and have not yet experienced face-to-face education.

In the dimension of qualitative data, under the theme of 'the meaning of education', which is the last theme of the study, students associated increasing the quality of distance education with ensuring 'active participation'. Active participation will be possible as a result of the interactive implementation of the courses, both with the efforts of the faculty members and the students, and with the support of the features of the systems or software platforms developed in line with the requirements.

As a result of a research conducted on 980 university students who had experience of distance education with the online survey method, more than half of the students expressed a positive opinion about distance education. According to the students, the two biggest problems experienced in distance education are technological disruptions and the unpreparedness of faculty members to conduct distance education. While 68% of the students believe that distance education will be an alternative to traditional face-to-face education in the future, the rest argue that distance education can be a complement to traditional education, not an alternative (Kuyucu, 2021). It is thought that more detailed and guiding results will be obtained if the data obtained in this study are compared for the students who participated in the research as those who received training in applied fields and those who did not. Although the distribution is not known, one of the answers given to the question of the disadvantages of distance education, the theme of 'not being able to conduct applied courses' reveals the necessity of developing solutions to overcome this problem.

As a result, the distance education experiences obtained in the current study are part of the temporary adaptation process in an extraordinary situation such as a pandemic. It has been shown that maintaining it in this way will not meet the requirements. After the pandemic, efforts should be continued to determine the needs for applied fields with such research to make them more qualified.

Current developments show that distance education applications, which started with the COVID-19 pandemic, will continue with the hybrid method after the pandemic ends. In order to maintain the hybrid method of education, especially in applied fields, without reducing the quality of education, it is necessary to take measures for both students and faculty members to overcome the existing difficulties revealed in the current study and to evaluate the effectiveness of these measures.

Since the needs of each applied field will vary in the distance education process, the fields should be handled separately and it should be investigated whether the solutions implemented by each field and proven to be effective will be effective for other fields as well.

The distance education process, which started with learning via letters, continues to change and develop with the flexible learning model, which is accepted as the fourth stage of distance education today. In order to provide this flexibility, it may be recommended to go beyond the existing applications and materials by using applications such as virtual reality applications and two-way video lessons for student-content interaction after the necessary face-to-face basis and communication channels have been established before transitioning to distance education.

In addition to the needs determined within the scope of this study for the distance education process, the needs of students with special needs should also be determined and it should be ensured that distance education is structured to include each student.

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