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Pre-Service Teachers' Perceptions on Distance Education*

Öğretmen Adaylarının Uzaktan Eğitim Algıları

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Abstract: Distance education applications within the universities in Turkey began to be used in all levels of education and distance education centers have been established in this regard. This situation made distance education widespread and at this point student perceptions have become an important issue. Perceptions have a significant role on pre-service teachers' internalization on distance education. It is important to determine preservice teachers' tendency towards conducting courses via distance education, the readiness of distance education activities that will be faced with in professional development and some factors affecting preservice teachers' perceptions on distance education. The aim of this study is to determine the distance education perception levels of pre-service teachers. The research is suitable for quantitative approach and designed according to the survey model. The sample of the study is conducted with 222 female and 99 male 3. grade university students who are pre-service teachers in Faculty of Education at a state university. As for the data collection instruments, "Distance Education Perception Inventory" and a personal information form are used. As a result of the research, it is realized that pre-service teachers' perceptions on distance education is in a low level. Additionally, it is understood that there is a significant differences between gender and pre-service teacher teachers' perceptions and male participants are more aware of the distance educations. Furthermore, there is a mean difference between the departments and the perceptions of pre-service teachers. However there is not a mean difference between participating a distance education program and pre-service teachers' perceptions. Additionally, there is not a mean relationship between internet use and pre-service teachers' perceptions on distance education.

Structured Abstract: Developments in technology play a crucial role in the improvement and enhancement of materials that are used in education; additionally technology leads to improve technology in education for the society (Toplu & Gokcearslan, 2012). The improvement of technology causes the needs in education, and

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traditional education cannot afford the needs of students (Khoshemehr, 2013). Traditional education system is lack of catching up the changing information and educating students who have different learning styles in an adequate and economic way. In this sense, the term distance learning that consists of technology-based learning and the term distance education are confronted here. Distance education is an educational model that comes in sight because of several reasons such as (a) due to the lack of physical conditions, for instance in rural areas and distance regions which is not reached to educational sources, in terms of sources and teachers, (b) due to the needs of some people who have a physical disability and have to live at home, (c) due to the needs of teenagers who cannot complete their formal education and adults who want to improve themselves in educational fields (Newby, Stepich, Lehman & Russell, 2006, as cited in Ates & Altun, 2008, p. 128).

According to Demirli (2002), the quality of distance education has affected the perception on distance education. In the perceptions of distance education, learning and success have a significant effect (Offir, Barth, Lev & Shteinbok, 2003). Perceptions affect attitudes and for an effective distance education, determining the perceptions is important. It is important to determine preservice teachers' tendency towards conducting courses via distance education, the readiness of distance education activities that will be faced with in professional development and some factors affecting preservice teachers' perceptions on distance education. Accordingly, in this study, it is aimed to reveal the level of preservice teachers' perceptions on distance education and the variables, which can affect their perceptions on distance education.

This study is designed as a descriptive survey model. The universe of this study is covered preservice teachers who were taught at Mugla Kocman University Faculty of Education in 2015-2016 academic years. As for sampling of this study, the students just in the third grade were determined. In this study, as for sampling technique, purposive sampling technique was used. As data collection instruments, a scale developed by Gunduz (2013) namely "Distance Education Perception Scale" and personal information form developed by the researchers were used in this study. In the personal information form, there were some items which were about gender, department, being participated in distance education and daily usage of internet. The data collected via data collection instruments were analyzed with the help of SPSS 20 packet program.

As a result of the data analysis, it can be concluded that the perceptions of pre-service teachers on distance education was determined as low level and it was near to unstable. The reason of low perceptions of pre-service teachers who were participated in distance may be the quality of distance education program. Moreover, it may be because the learning preferences of pre-service teachers. Students who are enjoyed in a classroom environment may think negatively about distance education. Another reason of low scores can be negative ideas on distance education. In their study, Ozkul and Aydin (2012) suggested that more than half of the students preferred mixed learning to face-to-face and distance education. Powers and Mitchell (1997) organized a web-based course program and in that study, it was concluded that the students who were taught with this program believed that it was time-consuming and they complained about not having a classroom environment.

According to the findings that were found via data analysis, there was a mean difference of perceptions in terms of gender and the difference was determined in countenance of male participants. However, as a result of the study conducted by Gunduz (2013), it was found that there was not a mean difference on pre-service teachers' perceptions about distance education in terms of their gender.

According to the findings that were found via data analysis, there was a mean difference of perceptions in terms of department. It was determined that the average scores of pre-service teachers in Department of Social Sciences Teaching was higher than the average scores of pre-service teachers in Department of Primary School Teaching. In the study conducted by Yilmaz and Guven (2015), it was stated that pre-service teachers in Primary Education Department could not have positive feelings, because they did not contact with their course teachers; additionally, they felt themselves as isolated from the society; and they were reluctant for courses since their questions weren't answered by their teachers adequately; moreover they could not focus on specific themes in the courses and they could not pay attention because of the long course durations. The differences between departments can be resulted from individual differences and different teaching programs in each one of the departments.

In this study, it was concluded that there was not a mean difference between pre-service teachers' perceptions on distance education in terms of being participated in a distance education course. In their studies, however, Ates and Altun (2008), Kislá (2005) and Brinkerhoff and Koroghlanian (2005) stated a mean

difference between the perception of education and being participated in a distance education program. Yet, in this study, there was not any mean difference between those concepts. The reasons of this result might be due to inefficient distance education programs and inadequate interaction between students and lecturers in distance education.

In this study, it was concluded there was not mean difference between the perception of distance education and the duration of using internet. Antalyali (2004) assumed that students who have much more used computer or internet would be interested in distance education more than the others; yet as a result of this study, it was concluded via correlation test that there was not a mean difference between internet usage and the perception of distance education.

As a result of this study, it was seen that pre-service teachers' perceptions on distance education was low level. For this reason, it is suggested that the reasons of this result can be examined in detail. The problems of pre-service teachers are tried to be determined via interviews carried out with a research group selected from pre-service teachers. Additionally, a similar study can be conducted with larger groups.

Key words: Distance education, perception on distance education, pre-service teacher, e-learning, instructional technologies.

Öz: Türkiye’de üniversiteler bünyesinde uzaktan eğitim uygulamaları tüm eğitim kademelerinde kullanılmaya başlanmış ve bu kapsamda uzaktan eğitim merkezleri kurulmuştur. Bu durum uzaktan eğitimin yaygınlaşmasını sağlamış ve bu noktada öğrenci algıları önemli bir konu haline gelmiştir. Algılar öğretmen adaylarının uzaktan eğitimi benimsemesinde önemli rol oynamaktadır. Öğretmen adaylarının meslek hayatlarında, öğrencileri ile uzaktan eğitim yoluyla etkileşim kurarak ders faaliyetlerini gerçekleştirme eğilimlerini, mesleki gelişimleri kapsamında karşılaşılabilecekleri uzaktan eğitim faaliyetlerine ne derecede hazır olduklarını ve uzaktan eğitime yönelik algılarını hangi etmenlerin etkilediğini belirlemek önem taşımaktadır. Bu araştırmanın amacı öğretmen adaylarının uzaktan eğitim algı düzeylerini belirlemektir. Araştırma nicel yaklaşıma uygun olup tarama modeline göre desenlenmiştir. Araştırmanın örneklemini bir devlet üniversitesinin Eğitim Fakültesi’nde okuyan 3. sınıf öğrencilerinden, 222 kadın öğretmen adayı ve 99 erkek öğretmen adayı olmak üzere 321 öğretmen adayı oluşturmaktadır. Araştırma verilerin toplanmasında “Uzaktan Eğitim Algı Ölçeği” ve kişisel bilgi formu kullanılmıştır. Araştırma sonucunda öğretmen adaylarının uzaktan eğitime yönelik algılarının düşük düzeyde olduğu belirlenmiştir. Öğretmen adaylarının uzaktan eğitim algılarının cinsiyet değişkenine göre anlamlı bir farklılık gösterdiği ve bu farklılığın erkek öğretmen adayları lehine olduğu belirlenmiştir. Öğretmen adaylarının uzaktan eğitim algılarının bölüm değişkenine göre anlamlı bir farklılık gösterdiği belirlenmiştir. Öğretmen adaylarının uzaktan eğitim algılarının uzaktan eğitime katılma durumu değişkenine göre anlamlı bir farklılık göstermediği belirlenmiştir. Öğretmen adaylarının uzaktan eğitim algılarının günlük ortalama internet kullanım süresi değişkenine göre anlamlı bir farklılık göstermediği belirlenmiştir.

Anahtar Kelimeler: Uzaktan eğitim, uzaktan eğitim algısı, öğretmen adayı, e-öğrenme, öğretim teknolojileri.

Introduction

As a rising concept, technology affects education like all of other disciplines. Developments in technology play a crucial role in the improvement and enhancement of materials that are used in education; additionally technology leads to improve technology in education for the society (Toplu & Gokcearslan, 2012). The speed of the improvement in Information and Communication Technologies (ICT) facilitates the transfer of information. The improvement of technology causes the needs in education, and traditional education cannot afford the needs of students (Khoshemehr, 2013). In the systems in which traditional education is insufficient, it is inevitable that there should be some changes in education policies, aims, functions and contents (Arslan & Eraslan, 2003). Traditional education system is lack of catching up the changing information and educating students who have different learning styles in an adequate and economic way. In this sense, the term distance

learning that consists of technology-based learning and the term distance education are confronted here.

There are a number of definitions for distance education in literature and it is seen that there are lots of common points in these definitions. Distance education is an educational model that comes in sight because of several reasons such as (a) due to the lack of physical conditions, for instance in rural areas and distance regions which is not reached to educational sources, in terms of sources and teachers, (b) due to the needs of some people who have a physical disability and have to live at home, (c) due to the needs of teenagers who cannot complete their formal education and adults who want to improve themselves in educational fields (Newby, Stepich, Lehman & Russell, 2006, as cited in Ates & Altun, 2008, p. 128). Distance education is a teaching method which is conducted in -specified centers and it aims to learn individually; additionally it consists of materials and physical conditions that are specifically designed for - learners (Banar & Firat, 2015). The needs of people in terms of not only professional development but also self-improvement for life-long learning lead - a rising demand on distance education.

In the studies that have been aimed to search on distance education, generally, the comparison of distance education and traditional education has been searched; however as for the results of those studies, it has been seen that there has not been any significant difference between traditional education and distance education in terms of success and learning (Torkut and Karacadağ, 2002; Arbaugh, 2000). Moreover, it is thought that there is not a problem on verbal courses in distance education, however it is nearly impossible teaching distance in some practical courses; for this reason it is believed that distance education should be used just a supportive technique in traditional education (Horzum, 2003; Alakoc, 2002). According to Aktas (2013), recently, the number of studies in which distance education and traditional education are compared has been decreased day by day. Instead of comparison studies, some new phenomenon on this term such as which kinds of actions can be successful in distance education or the perceptions and views of students on the term ‘distance education’ have begun to gain importance in this field.

In order to understand the concept of distance education, it is seen as - important that there has been a widespread aspect of distance education; additionally there have been new distance education centers at universities in Turkey and both undergraduate and postgraduate students have begun to be taught via distance education. According to Demirli (2002), the quality of distance education has affected the perception on distance education. In the perceptions of distance education, learning and success have a significant effect (Offir, Barth, Lev & Shteinbok, 2003). Perceptions affect attitudes and for an effective distance education, determining the perceptions is important. It is important to determine preservice teachers’ tendency towards conducting courses via distance education, the readiness of distance education activities that will be faced with in professional development and some factors affecting preservice teachers’ perceptions on distance education. Accordingly, in this study, it was examined whether the distance education perception levels and distance education perceptions of pre-service teachers differ according to the variables of gender, department, participation in distance education and daily average internet usage time.

Method

Research Design

This study is designed as a descriptive survey model. Descriptive survey model is a research model that aims to describe an action, which is seen in the past, or present through its existence way (Karasar, 2012).

Research Sample

The universe of this study is covered preservice teachers who were taught at Mugla Kocman University Faculty of Education in 2015-2016 academic years. As for sampling of this study, the

students just in the third grade were determined. In this study, as for sampling technique, purposive sampling technique was used. In this technique, -a researcher determines his/her own criteria to select participants and the most suitable participants for the aim of his/her research are selected purposefully (Balci, 2013). The main reason of determining just the third grade students for this study was that being newcomers of 1st and 2nd grade students and being reluctant of the 4th grade students because their heavy studies for KPSS exam. Since the 3rd grade students have got more than half of the courses on teacher education, they were purposefully determined for this study.

Table 1: The Range of the Participants in Terms of Variables

Variable	Group	n	%
Gender	Female	222	69.2
	Male	99	30.8
Department	Department of Science Education	50	15.6
	Department of Primary School Education	40	12.5
	Department of Mathematic Education	19	5.9
	Department of Social Science Education	36	11.2
	Department of Preschool Education	25	7.8
	Department of Turkish Education	18	5.6
	Department of Counseling and Psychological Guidance Education	36	11.2
	Department of Foreign Language Education	50	15.6
	Department of Fine Arts Education	47	14.6
Being participated in distance education	Participated	276	86.0
	No participated	45	14.0
The average duration of using internet (Daily)	1-5 hours	253	78.8
	6-10 hours	43	13.4
	11-15 hours	20	6.2
	16 hours and over	5	1.6
Total		321	100.0

Research Instrument

As data collection instruments, a scale developed by Gunduz (2013) namely "Distance Education Perception Scale" and personal information form developed by the researchers were used in this study. In "Distance Education Perception Scale", there were totally 20 items; 17 of them were positive and 3 of them were negative, and it was designed as five-Likert-scale ranging from "Totally Agree" and "Totally Disagree". In this scale, the highest point was 100 points and the lowest one was 20 points. It was also interpreted that the candidate teacher who had got high marks had a higher perception on distance education, whereas those who had got lower marks had a low level of perception on distance education. As a result of the internal consistency analysis conducted by Gunduz (2013), the coefficient of internal consistency was determined as .84 for the whole scale. However, in this study, Cronbach alfa coefficient of the scale was calculated as .89 at the end of the analysis. In the personal information form, there were some items which were about gender, department, being participated in distance education and daily usage of internet.

Data Analysis

The data collected via data collection instruments were analyzed with the help of SPSS 20 packet program. First of all, in order to determine the range of participants in terms of variables, percentage and frequency were used. Then, the rate of being homogenous was tested. In order to determine the normality distribution, Kolmogorov-Smirnov test was applied. According to Buyukozturk (2012), in case of higher than 50 points in groups, Kolmogorov-Smirnov (K-S) test was used for the aim of determining normality distribution. Since the number of participants were

higher than 50 (N=321), in this study, Kolmogorov-Smirnov test was preferred. Additionally, the results of Leven's Test for Equality of Variances were examined in order to determine whether the range was homogenous or not.

Table 2: Distance Education Perception Scale One-Simple K-S Test Results

Values		Distance Education Perception Scale
n		321
Normal Parameters	$\bar{X}$	51.28
	SS	12.80
Kolmogorov-Smirnov Z		1.094
p		.182

For all variables, it was determined that the range served the purpose of being homogenous and normality. As for double comparisons, Independent Simple t-test was used; as for the variables more than two, One-Way analysis of variance (One-Way Anova) was used and the level of significance was agreed as .05 for this study.

Findings

In this session, the findings collected on the field of preservice teachers' perceptions on distance education and the variables that could affect those perceptions in terms of gender, department, being participated in distance education programs and daily usage duration of internet.

In order to answer the research question as "What is the preservice teachers' perception on distance education?", the average scores of the preservice teachers and the results of their minimum and maximum values were calculated.

Table 3: The Perception Level of Preservice Teachers on Distance Education

	n	$\bar{X}$	Ss	Min.	Max.
Perception Level of Distance Education	321	51.29	12.81	20.00	92.00

When Table 3 was examined, it was seen that the average of scores on the perception of distance education was determined as 51.29 for the preservice teachers who were participated in this study. The highest score that could be got in the scale was 100 points and the lowest one was 20 points.

In order to answer the research question that is determined as the first sub-problem of this study "Is there any mean difference between preservice teachers' perceptions on distance education and their gender?", t-test from the parametric tests was used for independent groups.

Table 4: The Analysis of Distance Education Perceptions in Terms of Gender

Gender	n	$\bar{X}$	S	Sd	t	p
Male	99	53.78	12.61	319	-2.340	.020
Female	222	50.18	12.96			

When Table 4 was examined, it was seen that there was a mean difference of perceptions in terms of gender ($t=2,340$, $p<.05$). The difference was determined in countenance of male participants. It was realized that the average scores of male participants ($\bar{X}=53.78$) was higher than female participants ($\bar{X}=50.18$).

In order to answer the research question that is determined as the second sub-problem of this study "Is there any mean difference between preservice teachers' perceptions on distance education and their departments?", one-way analysis of variance (One-Way Anova) from the parametric tests was used.

Table 5: The Analysis of Distance Education Perceptions in Terms of Departments

Department	Sum of Square	Sd	Mean Square	F	p
Between Groups	2618.2225	8	327.278	2.047	.041
Within Groups	49891.831	312	159.910		
Total	52510.056	320			

When Table 5 was examined, it was seen that there was a mean difference of perceptions in terms of departments ($t=2.047$, $p<.05$). In order to determine the mean differences for groups, Tukey test was used and it was determined that the mean differences were between Department of Primary School Teaching and Department of Social Sciences Teaching. It was determined that the average scores of pre-service teachers in Department of Social Sciences Teaching ($\bar{X}=56.58$) was higher than the average scores of pre-service teachers in Department of Primary School Teaching ($\bar{X}=47.08$).

In order to answer the research question that is determined as the third sub-problem of this study "Is there any mean difference between pre-service teachers' perceptions on distance education and their participation of distance education?" t-test from the parametric tests was used for independent groups.

Table 6: The Analysis of Distance Education Perceptions in Terms of Being Participated in Distance Education

The case of participating distance education	n	$\bar{X}$	S	Sd	t	p
Participated	276	51.47	12.89			
Not participated	45	50.16	12.40	319	.640	.523

When Table 6 was examined, it was seen that there was not a mean difference of perceptions in terms of their participation of distance education ($t=.640$, $p>.05$). Additionally, when the results of pre-service teachers who were participating in distance education and the others who were not participating in distance education were compared, it was seen that their scores were close to each others.

In order to answer the research question that is determined as the third sub-problem of this study "Is there any mean difference between pre-service teachers' perceptions on distance education and the duration of using internet?", One-way Analysis of Variance (One-Way Anova) from the parametric tests was used.

Table 7: The Analysis of Distance Education Perceptions in Terms of the Duration of Using Internet

Session	Sum of Square	Sd	Mean Square	F	p
Between Groups	788.384	3	262.795	1.611	.187
Within Groups	51721.672	317	163.160		
Total	52510.056	320			

When Table 7 was examined, it was seen that there was not a mean difference of perceptions in terms of the duration of using internet ($F=1.611$, $p>.05$).

Discussion, Conclusion and Recommendations

Discussion

In this study, it was examined whether the distance education perception levels and distance education perceptions of pre-service teachers differ according to the variables of gender, department, participation in distance education and daily average internet usage time.

It was determined that the distance education perceptions of the pre-service teachers were low and almost indecisive. The reason of low perceptions of pre-service teachers who were participated in distance may be the quality of distance education program. Moreover, it may be because the learning preferences of pre-service teachers. Students who are enjoyed in a classroom environment may think negatively about distance education. Another reason of low scores can be negative ideas on distance education. In their study, Ozkul and Aydin (2012) suggested that more than half of the students preferred mixed learning to face-to-face and distance education. Powers and Mitchell (1997) organized a web-based course program and in that study it was concluded that the students who were taught with this program believed that it was time-consuming and they complained about not having a classroom environment. Dick, Case and Burns (2001) stated that students' perceptions on distance education were near to unstable and they believed that it was the second option. In the study that was conducted by Gunduz (2013), 692 pre-service teachers were participated in it and, the scale of pre-service teachers on distance education was used as a data collection instrument; and it was concluded the level of pre-service teachers' perceptions on distance education was low. In their study, Marsh, Mitchell and Adamczyk (2010) stated that students declared that they did not feel themselves as a real student in distance education and as a result of it; their perception on distance education was affected negatively. That result of the study was supported by the other studies in literature (Antalyali, 2004; Kisla, 2005; Gillies, 2008; Birisci, 2013; Baris, 2015).

According to the findings that were found via data analysis, there was a mean difference of perceptions in terms of gender and the difference was determined in countenance of male participants. However, as a result of the study conducted by Gunduz (2013), it was found that there was not a mean difference on pre-service teachers' perceptions about distance education in terms of their gender. Similarly, as a result of the studies conducted by Kisla (2005), Unalir, Onal and Beydag (2006), Ates and Altun (2008) and Baris (2015), the same result was declared. Yet, in this study, it was found that the perceptions of male participants were higher than the level of female perceptions. In this case, it can be said that female students prefer face-to-face learning and classroom interactions to distance education. In similar, Ozkul and Aydin (2012) stated at the end of their study that female students more prefer face-to-face learning in school environment than male students.

According to the findings that were found via data analysis, there was a mean difference of perceptions in terms of department. It was determined that the average scores of pre-service teachers in Department of Social Sciences Teaching was higher than the average scores of pre-service teachers in Department of Primary School Teaching. In the study conducted by Yilmaz and Guven (2015), it was stated that pre-service teachers in Primary Education Department could not have positive feelings, because they did not contact with their course teachers; additionally, they felt themselves as isolated from the society; and they were reluctant for courses since their questions weren't answered by their teachers adequately; moreover they could not focus on specific themes in the courses and they could not pay attention because of the long course durations. The differences between departments can be resulted from individual differences and different teaching programs in each one of the departments. In the study that was carried out by Gunduz (2013), similarly, it was revealed that there was a mean difference on pre-service teachers' distance education perceptions in terms of their departments. This result of the study was supported by some other studies in the literature (Gunduz, 2013; Yilmaz Kaleli & Guven, 2015; Baris, 2015).

It was determined that there was not a mean difference between pre-service teachers' perceptions on distance education in terms of being participated in a distance education course. In their studies, however, Ates and Altun (2008), Kisla (2005) and Brinkerhoff and Koroghlanian (2005) stated a mean difference between the perception of education and being participated in a distance education program. Yet, in this study, there was not any mean difference between those concepts. The reasons of this result might be due to inefficient distance education programs and inadequate interaction between students and lecturers in distance education. Dougiamas (2000) stated that the ideas of lecturers could affect students' opinions in distance education programs. Moore (1993) and Ali, Ramay and Shahzad (2011) suggested that the interaction between students and lecturers had a crucial role in a successful and effective distance education program. Mitchell, Banaji and Macrae (2005) stated that the students who had negative experiences for distance education did not want to be participated in distance education and they had negative perception on distance education. In this case, it can be said that the lecturers who carry out a distance education program have a great responsibility on conducting distance education programs effectively. Additionally, it can be stated that in order to create a positive perception on distance education, a number of factors such as distance education programs, lecturers and atmosphere has been significant for learners.

It was determined that there was not mean difference between the perception of distance education and the duration of using internet. Antalyali (2004) assumed that students who have much more used computer or internet would be interested in distance education more than the others; yet as a result of this study, it was concluded via correlation test that there was not a mean difference between internet usage and the perception of distance education. Gunduz (2013) similarly, it was found that there was not a mean difference between students in terms of using much more internet. However, in the studies conducted by Baris (2015), Ozkul and Aydin (2012) and Yildiz (2011), it was stated that there was a mean difference between two phenomenon that were mentioned in this paragraph. It can be thought that the reason of this result may be because some factors such as connecting internet easily and widespread usage of internet in recent days.

Conclusion

According to findings that the perceptions of pre-service teachers on distance education was in low level; there were mean differences between two variables namely gender and department and the perception of distance education; however there was not a mean difference between using internet much more and being participated in a distance education program. The perceptions have a crucial role for being adjusted the distance education by pre-service teachers. To determine pre-service teachers' perceptions on distance education is significant in terms of more effective distance education programs. Because distance education has a meaningful role in teaching process, it is believed that this study can be helpful to design more effective distance education programs in schools or at universities.

Recommendations

According to findings that, it was seen that pre-service teachers' perceptions on distance education was low level. For this reason, it is suggested that the reasons of this result can be examined in detail. The problems of pre-service teachers are tried to be determined via interviews carried out with a research group selected from pre-service teachers.

Since pre-service teachers' perceptions on distance education was low level in terms of being participated in a distance education program, the programs on this field can be examined in detail and they can be reorganized. A number of aspects in distance education such as content, aims, teaching process and assessment can be searched in terms of students' needs and educational backgrounds. In order to chance pre-service teachers' perceptions positively, some seminars, conferences and meetings that are about theoretical information and the benefits of distance education can be organized for candidate teachers.

An extra course on the field of distance education and internet that will have a key role in education in the near future can be added in teaching programs at universities. In our era in which the use of internet is widespread, improving the use of internet for education can be positively changed the perceptions of pre-service teachers about distance education.

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