

Özel Eğitim Öğretmen Adaylarının Eğitimde Teknoloji Kullanımı ve Eğitim Yazılımlarına İlişkin Görüşleri

Opinions of Special Education Pre-Service Teacher's on the Use of Technology in Education and Educational Software

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ÖZET

Araştırmanın amacı özel eğitim öğretmen adaylarının eğitimde teknoloji kullanımı ve eğitim yazılımları hakkındaki görüşlerinin belirlemektir. Bu araştırma nitel ve nicel araştırma yöntemlerinin bir arada kullanıldığı karma yöntem araştırmasıdır. Araştırmada karma yöntemlerden gömülü (içe yerleşik) desen kullanılmıştır. Araştırmanın nicel çalışmasının araştırma grubunu 2022-2023 yılında Trakya Üniversitesinde öğrenim gören 1., 2., 3. ve 4. sınıf olmak üzere 140 özel eğitim öğretmen adayı oluşturmuştur. Araştırmanın nitel araştırma grubunu 2022-2023 yılında Trakya Üniversitesinde öğrenim gören 1., 2., 3. ve 4. sınıf olmak üzere her sınıftan ikişer öğrenci olmak üzere 8 özel eğitim öğretmen adayı oluşturmuştur. Araştırmanın nitel verileri yarı yapılandırılmış görüşme ile elde edilmiştir. Araştırmanın nicel sonuçlarına göre, özel eğitim öğretmen adayları bilgisayar kullanımına ilişkin kendini yeterli görme düzeyi açısından en zayıf hissettikleri alan web sayfası geliştirme olurken kendilerini iyi düzeyde yeterli hissettikleri E-posta kullanımı olmuştur. özel eğitim öğretmen adaylarının eğitimde teknoloji kullanımı ve eğitim yazılımları hakkında görüşleri cinsiyet, sınıf, bilgisayara sahip olma ve internete erişimi olma değişkenlerine göre anlamlı bir farklılık göstermemiştir. Araştırmanın nitel sonuçlarına göre, özel eğitim öğretmen adayları eğitimde teknoloji ve eğitim yazılımı kullanımının sağladığı yararlar konusunda bilgiye daha çabuk ve daha kolay ulaşım imkanı dikkat çekerken, eğitimde teknoloji ve eğitim yazılımlarını kullanırken karşılaşılan en önemli sorun alt yapı olmuştur.

Anahtar Kelimeler: Özel Eğitim, Özel Eğitim Öğretmen Adayları, Eğitimde Teknoloji, Eğitim Yazılımları

ABSTRACT

The aim of the study is to determine the opinions of special education pre-service teacher's about the use of technology in education and educational software. This research is a mixed method research in which qualitative and quantitative research methods are used together. Embedded design, one of the mixed methods, was used in the research. The research group of the quantitative study of the research consisted of 140 special education pre-service teacher, 1st, 2nd, 3rd and 4th grade students, who studied at Trakya University in 2022-2023. The qualitative research group of the research consisted of 8 special education pre-service teacher's two from each class, from the 1st, 2nd, 3rd and 4th grades, studying at Trakya University in 2022-2023. Qualitative data of the research were obtained by semi-structured interview. According to the quantitative results of the study, the area in which special education pre-service teacher felt the weakest in terms of their level of self-efficacy regarding their use of computers was web page development, while the use of e-mail, where they felt

competent at a good level. The opinions of the special education pre-service teacher's about the use of technology in education and educational software did not show a significant difference according to the variables of gender, class, having a computer and having access to the internet. According to the qualitative results of the research, while special education pre-service teacher's draw attention to the quicker and easier access to information about the benefits of using technology and educational software in education, the most important problem encountered while using technology and educational software in education is infrastructure.

Keywords: Special Education, Special Education Pre-service Teachers, Technology in Education, Technology Software.

INTRODUCTION

The rapid and continuous developments in information and communication technologies have increased the work capacity and efficiency while reducing the power usage required for many tasks in daily life. This rapid change in science and technology has also affected individual and social life (Yılmaz, 2007; Özkale, Koç, 2014). The use of technology in education is an important element that increases the quality of education, and new technologies have taken their place in the education process thanks to educational technology. Technological developments and changes have also necessitated the change in learning-teaching activities. Thus, it is extremely important that teachers, who will reflect a more modern understanding of computer use and environment size in all educational activities, to the classroom atmosphere, adapt to technological developments (Aktepe, 2011; Yılmaz, 2016; Kaya, 2017). When it comes to the effective use of instructional technologies in learning-teaching processes, the existence of many factors such as teachers, students, curriculum, syllabus, school management, technological infrastructure stands out. The main purpose of using technology in this process is to contribute to the cognitive, affective and psychomotor development of students by enabling them to learn. For this reason, it can be argued that the teacher's use of technology and the knowledge and skills he has are an important factor in the evaluation of technology use (Sert, Kurtoğlu, Akıncı, Seferoğlu, 2012). Technology used in education is the application of technology for learning and teaching. Technologies used in schools are generally standardized technologies. Because students with special needs are increasingly placed in general education classrooms, special education teachers need to be increasingly familiar with general structural technological interventions (Edyburn, 2013). In the last few years, there are sample studies on assistive technologies such as tablet computers, smart board applications, cloud technology applications, educational robots that can guide the use of assistive technology in special education (Sani-Bozkurt, 2017). The use of technology for the use of advanced technologies in special education, which has developed in recent years, should be increasingly offered to special education students in general education and special education classes. Robot-assisted applications can provide learners with advantageous interactions such as multimedia, physical movement, human-like appearance and touch. Due to these abilities, robots have an important potential to increase the attention and motivation of students with mental disabilities. For this reason, it is foreseen that the studies in which the activities that include the feedback given by the humanoid robots are designed and implemented will contribute to the integration of technology into the field of education and the creation of innovative learning environments for the field of special education (Özdemir & Kahraman, 2017).

One of the technology that will provide convenience to special education teachers in education is cloud technology. From educational advantages; It is thought that mobile technologies are not sufficiently utilized due to the problems encountered in issues such as data sharing, software sharing and infrastructure services. At this point, storage, communication, planning, etc. Cloud Technology, which provides opportunities for mobile learning, provides effective solutions to solve the problems encountered in mobile learning and enables mobile learning to be made more effective and efficient (Sarıtaş & Üner, 2013). Studies have shown that when tablet computers are used by special education teachers, positive results are obtained.(Haksız, 2014; Sola-Özgüç, Cavkaytar (2014). One of the technologies that teachers in special education can use in educational environments is 3D printers. Buehler vd. (2014) In their study, it is stated that 3D printers can be used in special education environments and the simple tools they make can facilitate the needs of students with special needs, while at the same time revealing the creative power of the student.

The most important elements necessary for the use of the infrastructures of these technological opportunities are educational software and qualified educators who can use them and guide the students. Many domestic and international universities and companies operate in the development of special education hardware and software. It is of great importance for our education system to carry out new studies on increasing the number and quality of these hardware and software (Kışla, 2008). According to researches; Although teachers consider the use of technology in education very important, they stated that they could not sufficiently benefit from computer-oriented technologies such as databases, computer simulations, various information system software, photographic and graphic editing programs, and that they did not know how to use these technologies (Özçelik ve Kurt, 2007; Taş, Özel ve Demirci, 2007; Mete, 2008; Menzi, Çalışkan ve Çetin, 2012).

When the literature is examined, the limited number of studies on the use of technology in education and educational software by special education teacher candidates forms the basis of the purpose of the study, and the use of technology in special education is extremely important in meeting the educational needs of individuals with special needs. The study is expected to reveal the opinions of special education pre-service teacher's about the use of technology and educational software for technology use.

Purpose of Study

The aim of this research is to determine the opinions of special education pre-service teacher's about the use of technology in education and educational software.

Problem Statement of the Study

The problem sentence of this research is "What are the opinions of special education teacher candidates about the use of technology in education and educational software?" has been determined.

Sub-Problems of the Study

- What is the level of self-efficacy of special education pre-service teacher's regarding their use of computers?
- Do the opinions of special education pre-service teacher's about the use of technology in education and educational software differ significantly according to the gender variable?

- Do the opinions of special education pre-service teacher's about the use of technology in education and educational software differ significantly according to the variable of having a computer?
- Do the opinions of special education pre-service teacher's about the use of technology in education and educational software differ significantly according to the variable of access to the internet?
- Do special education pre-service teacher's views on technology use in education and educational software show a relationship between their computer proficiency levels and their perceptions on technology use?
- What are the opinions of special education pre-service teacher's about the benefits of using technology in education?
- What are the opinions of special education pre-service teacher's about the problems they experience in using technology in education?
- What are the opinions of special education pre-service teacher's about increasing the use of technology in education?

METHODOLOGY

This study is a mixed method study in which qualitative and quantitative research methods are used together. Embedded design, one of the mixed methods, was used in the study. In this design, one of the qualitative or quantitative methods comes to the fore more than the other, but data obtained by alternative methods is also needed to support, generalize or explain the data obtained (Yıldırım ve Şimşek, 2013).

Research Group of the Study

The quantitative research group of the study was carried out with a total of 140 teacher candidates studying in the 1st, 2nd, 3rd and 4th grades of special education teaching at the Faculty of Education at Trakya University in the fall semester of the 2022-2023 academic year. In this context, 140 special education pre-service teacher's studying in the special education department constitute the research group. Some demographic information about the pre-service teacher's participating in the research is given in Table 1.

Table 1. Demographic Characteristics of Pre-Service Teacher's in the Research Group

Characteristics	<i>f</i>	%
Gender		
Women	80	57,1
Men	60	42,9
Total	140	100
Class		
1.Class	45	32,1
2.Class	32	22,9
3.Class	35	25,0

Characteristics	<i>f</i>	%
4.Class	28	20,0
Total	140	100
Computer Ownership Status		
Yes	92	65,7
No	48	34,3
Total	140	100
Availability of Internet Access		
Yes	95	67,9
No	45	32,1
Total	140	100

As seen in Table 1, 57.1% of the sample participating in the research were female (n=80), 42.9% (n=60) were male. 32.1% of the sample were 1st grade (n=45), 22.9% 2nd grade (n=32), 25% 3rd grade (n=35), 20% (n) =28 It is the 4th class. While 65% (n=92) of the sample have a computer, 34.3% (n=48) do not have a computer. While 67.9% (n=95) of the sample had internet access, 32.1% (n=45) did not.

The special education teachers, who constitute the qualitative research group of the research, were determined by the stratified purposive sampling method, one of the purposive sampling methods. It consists of eight special education teacher candidates studying in the 1st, 2nd, 3rd and 4th grades of special education teaching at the Faculty of Education of Trakya University in the fall semester of the 2017-2018 academic year. The special education teachers participating in the research were determined as two from each class. 37.5% (n=3) of the special education teacher candidates are male and 62.5% (n=5) are female.

Data Collection Tools

Within the scope of the study, the personal information form developed by the researcher and prepared with expert opinions, and the Likert-type 5-point Technology Perception Scale (TAS.) consisting of 28 items developed by TINMAZ (2004) were used to measure the perceptions of teacher candidates about the use of technology in education. In order to determine the computer proficiency levels of teacher candidates, the Likert-type 3-point Perceived Computer Proficiency Scale (APYÖ.) consisting of 10 items, which was also developed by TINMAZ (2004), was used. According to the validity and reliability study conducted by Tinmaz (2004), the Cronbach Alpha coefficient of the scale was calculated as 0.87. In this study, the Cronbach Alpha coefficient was calculated as 0.94. The interview form, which was prepared by the researcher and consisted of 4 open-ended questions, was used as the qualitative data collection tool of the research.

Analysis of Data

In the study, Technology Perception Scale (TAS.), Perceived Computer Proficiency Scale (APYÖ.) and interview form were used as data collection tools. Statistical Package for Social Sciences (SPSS, 17 Statistical Package for the Social Sciences) was used to analyze the collected data.

FINDINGS

Table 2. Self-Sufficiency Levels of Special Education Pre-Service Teacher's Regarding Computer Use

Scale Items	Computer Proficiency Levels						
	Weak		Middle		Good		
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	
Computer Basic Concepts	9	6,4	61	43,6	70	50	2,43
Physical Parts of the Computer (Hardware)	39	27,9	62	44,3	39	27,9	2,00
Operating System (Ör: Windows)	24	17,1	71	50,7	45	32,1	2,15
Word Processing Programs (Ör: Word)	19	13,6	55	39,3	66	47,1	2,33
Calculation Chart Programs (Ör: Excel)	39	27,9	60	42,9	41	29,3	2,01
Presentation Programs (Ör: Powerpoint)	19	13,6	44	31,4	77	55,0	2,41
Database Programs (Ör: Access)	83	59,3	49	35,0	8	5,2	1,46
Web Page Development (Ör: Dreamweaver)	110	78,6	28	20,0	2	1,4	1,22
İnternet-World Wide Web (www) Using	22	15,7	40	28,6	78	55,7	2,40
E-post (E-mail) Using	5	3,6	30	21,4	105	75,0	2,77
Total: 1400	369		500		531		

When Table 1 is examined, it is seen that there are web page development ($f=110$, $x=1,22$) and database programs ($f=83$, $x= 1.46$) that special education pre-service teacher's feel weak in terms of self-efficacy regarding computer use. It is seen that they feel moderately competent about the operating system ($f=71$, $x=2.15$) and the physical parts of the computer ($f=62$, $x=2.00$). E-mail use ($f=105$, $x=2.77$) and internet-world wide web (www) usage ($f=78$, $x=2.41$) were found to have a good level of competence.

The first sub-problem of the study is "Do the opinions of special education pre-service teacher's about the use of technology in education and educational software differ significantly according to the gender variable?" formatted. The arithmetic mean, standard deviation and t-test results were given to determine whether the opinions of the special education pre-service teacher's about the use of technology in education and educational software regarding this problem differ according to the gender variable. The results obtained are given in Table 3.

Table 3. The Findings of the Opinions of Special Education Pre-Service Teacher’s on the Use of Technology in Education and Educational Software on the Gender Variable

Gender	<i>N</i>	<i>X</i>	<i>S</i>	<i>sd</i>	<i>t</i>	<i>P</i>
Man	60	3,7958	,49154	138	0,69	0,49 meaningless
Woman	80	3,8576	,56345			

When Table 3 was examined, it was revealed that the opinions of the special education Pre-Service Teacher’s about the use of technology in education and educational software did not differ significantly according to the gender variable [$t(138)=0.69, p>0,05$].

The second sub-problem of the study is “Do special education pre-service teacher’s opinions about technology use in education and educational software differ significantly according to the class variable?” formatted. The arithmetic mean, standard deviation and ANOVA results were given to determine whether the opinions of the special education about pre-service teacher’s the use of technology in education and educational software regarding this problem differ according to the class variable. The results obtained are given in Table 4.

Table 4. The Findings of Special Education Pre-Service Teacher’s Opinions on the Use of Technology in Education and Educational Software on the Class Variable

	<i>sum of squares</i>	<i>sd</i>	<i>mean of squares</i>	<i>F</i>	<i>P</i>
Between Groups	,434	3	,145	,504	,680
İn Groups	39,033	136	,287		
Total	39,466	139			

When Table 4 is examined, it has been revealed that the opinions of the special education Pre-Service Teacher’s about the use of technology in education and educational software do not differ significantly according to the class variable [$t(138)=0,69, p>0,05$].

The third sub-problem of the study is “Do special education pre-service teacher’s opinions about technology use in education and educational software differ significantly according to the variable of having a computer?” formatted. The arithmetic mean, standard deviation and t-test results were given to determine whether the opinions of the special education pre-service teacher’s about the use of technology in education and educational software regarding this problem differ according to the variable of having a computer. The results obtained are given in Table 5.

Table 5. The Findings of Special Education Pre-Service Teacher’s Opinions on the Use of Technology in Education and Educational Software on the Variable of Owning a Computer

Computer Ownership Status	<i>N</i>	<i>X</i>	<i>S</i>	<i>sd</i>	<i>t</i>	<i>P</i>
Yes	48	3,8899	,47402	138	0,99	0,34
No	92	3,8005	,56114			meaningless

When Table 5 is examined, it has been revealed that the opinions of the special education pre-service teacher’s about the use of technology in education and educational software do not differ significantly according to the variable of having a computer [$t(138)=0,99$, $p>0.05$].

The fourth sub-problem of the study is “Do the opinions of special education pre-service teacher’s about the use of technology in education and educational software differ significantly according to the variable of access to the internet?” formatted. The arithmetic mean, standard deviation and t-test results were given to determine whether the opinions of the special education pre-service teacher’s about the use of technology in education and educational software regarding this problem differ according to the variable of internet access status. The results obtained are given in Table 6.

Table 6. Findings of Special Education Pre-Service Teacher’s Opinions on the Use of Technology in Education and Educational Software on the Variable of Internet Access Status

Availability of Internet Access	<i>N</i>	<i>X</i>	<i>S</i>	<i>sd</i>	<i>t</i>	<i>P</i>
No	45	3,9524	,42024	138	1,87	0,064
Yes	95	3,7737	,57168			meaningless

When Table 6 is examined, it has been revealed that the opinions of the special education pre-service teacher’s about the use of technology in education and educational software do not differ significantly according to the variable of access to the internet [$t(138)=0,99$, $p>0.05$].

The fifth sub-problem of the study is “Do special education pre-service teacher’s opinions about technology use in education and educational software differ significantly according to their computer proficiency levels and their perceptions of technology use?” formatted. The arithmetic mean, standard deviation and t-test results were given to determine whether the opinions of the special education pre-service teacher’s about the use of technology in education and educational software regarding this problem differ according to the variable of their computer proficiency levels and their perceptions of technology use. The results obtained are given in Table 7.

Table 7. Findings Related to Computer Proficiency Levels and Perceptions of Special Education pre-service teacher’s towards Technology

Variables		<i>Technology Proficiency Level</i>	<i>Perception of Technology</i>
Technology Proficiency Level	<i>r</i>	1000	,173**
	<i>p</i>		,218
	<i>N</i>	140	140
Perception of Technology	<i>r</i>	,173**	1
	<i>p</i>	,041	
	<i>N</i>	140	140

When Table 7 is examined, it is seen that the correlation coefficient between the average scores of 140 special education pre-service teacher’s participating in the research is $r=0.173$. For this reason, it has been revealed that there is a low level of positive correlation between the technology proficiency levels of the special education pre-service teacher’s and their perceptions towards technology.

Findings Related to Qualitative Data

In this section, the findings obtained from the analysis of the qualitative data collected through the semi-structured interview are presented. The opinions of the special education pre-service teacher’s are presented as M2, H2, Y1, E1...

Special education pre-service teacher’s “What kind of benefits do you benefit from using technology and educational software in education? Could you please explain” The findings regarding their views on the question are given in Table 8.

Table 8. Benefits of Using Technology and Educational Software in Education

Benefits	f
Providing faster and easier access to information	4
Increasing the quality of education	3
Other	3

According to Table 8, the benefits of using technology and educational software in education for the special education pre-service teacher’s participating in the research; providing faster and easier access to information (4 pre-service teacher’s), increasing the quality of education (3 pre-service teacher’s), under the other category; It is stated that it provides the opportunity to provide visual and auditory training (1 pre-service teacher’s), shortens the duration of the training (1 pre-service teacher’s), does not bring much benefit (1 pre-service teacher’s). Some of the opinions of special education pre-service teacher’s regarding the benefits of using technology and educational software in education are as follows:

“Using technology allows us **to save time**. We have more time to spend on education. The time we spend with the child increases.” (H4)

“Using technology and educational software in education **enables me to reach the subject more quickly**. I can find topics that I can't find from educational software or social media. I can find them when I type from Google, which is good for me.” (M2)

“To give an example, there are various studies carried out by the seed autism foundation, various activities are organized for individuals with autism, and we can **see many examples of activities** that may benefit them as a result of these activities.” (E1)

“**I don't think that using technology in education will bring much benefit to teacher candidates**. Of course, the pre-service teacher can use it for self-development, but after he improves himself, it seems like it will be more beneficial by dealing with students more and directly mingling with students. The benefit of technology for the teacher is limited.” (H2)

“What kind of problems do you encounter when using technology and educational software in education?” The findings regarding their views on the question are given in Table 9.

Table 9. Problems Encountered While Using Technology and Educational Software in Education

Problems	<i>f</i>
On infrastructure	2
Using software that requires more knowledge	2
Other	1

According to Table 9, the problems faced by the special education pre-service teacher's participating in the research while using technology and educational software in education; Infrastructure (2 pre-service teachers), using software that requires more information (2 pre-service teachers), and using correct information (1 pre-service teacher) in the other category. Some of the opinions of special education pre-service teacher's regarding the benefits of using technology and educational software in education are as follows:

“Let's say I prepared a slide, how reliable is the information on the slide I prepared? How useful is the information I will give to my students? We may have problems in learning this. There is a lot of information on the Internet, **it is very important to collect the information from everywhere and transfer the information correctly**, most importantly, it is very important to filter it.” (M2)

“I know very popular software, but **I can't do software that requires more knowledge or practice**. I get stuck there and have to get help from someone else.” (Ü4)

“I don't use much software, I usually use powerpoint and word. I'm not very familiar with them either, and **I can't do very advanced things with them either**. I can't do animation.” (Ş3)

Special education pre-service teacher's "What can be done to increase your use of technology and educational software in education?" Findings related to their views on the question are given in Table 10.

Table 10. Things to Do to Increase the Use of Technology and Educational Software in Education

Things to Do to Increase the Use of Technology and Educational Software in Education	<i>f</i>
Giving lectures on the use of technology and educational software in education	4
Receiving the opinions and suggestions of teacher candidates	2
Giving conferences and seminars	2
Others	2

According to Table 10, in order to increase the use of technology and educational software in education, the special education pre-service teacher's participating in the research; In the category of other; gave education with a video guide (1 pre-service teacher), giving homework (1 pre-service teacher). Some of the views of special education pre-service teacher's on increasing the use of technology and educational software in education are as follows:

*"Education can be given, **different courses can be given in schools**. Technology is used more in education with children with autism, but we are not very familiar with technology. I don't know very well how to use it. How can I make an animation? I don't know. They gave us computer lessons, but lessons can be given directly to the field."* (Ş3)

*"Petitions can be written to the state in order to eliminate the deficiencies and the **opinions and suggestions of the pre-service teacher's can be obtained**."*(Y1)

*"For example, if I am informed and taught about software, I can create my own software. Should only computer teachers know the software? No. It will be very useful for us to give a lecture by a person who has improved himself on **these issues in schools and to give examples from his own life**."* (E1)

*"Unfamiliar programs can be identified and worked on. We can be a video model of what to do and show us this through a **video guide**."*(M3)

CONCLUSION, DISCUSSION AND RECOMMENDATIONS

In this study, the opinions of special education pre-service teacher's about the use of technology in education and educational software were examined. The findings revealed the opinions of the 1st, 2nd, 3rd and 4th grade students studying at the Special Education Teaching Department of Trakya University Education Faculty about the use of technology in education and educational software.

According to the results of the technology perception scale applied in the research, the special education pre-service teacher's levels of self-efficacy regarding their use of computers were the weakest in web page development and database programs, and the best subjects were e-mail use and internet-word wide web (www) use. has been determined. The results obtained in the research Saygıner (2016) show parallelism with the results obtained.

When the correlation between the scores obtained from the Perceived Computer Proficiency Scale and the Technology Perception Scale applied to the special education pre-service teacher's was examined, it was determined that there was a low-level positive significant relationship between the groups. When the correlation of the scores obtained from the Perceived Computer Proficiency Scale and Technology Perception Scale obtained in his research, Saygıner (2016) was examined, it was determined that there was a weak and positive relationship. Therefore, this result between the two studies shows parallelism.

In the study, when the opinions of special education pre-service teacher's about the use of technology in education and educational software differ according to the gender variable, no significant difference was found between men and women in terms of computer proficiency levels. However, when the literature studies are examined, it has been determined that there is a significant difference in favor of male pre-service teacher's according to gender in almost all of the studies Korkut ve Akkoyunlu, 2008; Birgin, Çoker ve Çatlıoğlu, 2010; İpek ve Acuner, 2011; Menzi, Çalışkan ve Çetin, 2012; Saygıner, 2016). In the study, when the opinions of the special education pre-service teacher's about the use of technology in education and educational software differ according to the variable of having a computer, no significant difference was found between the computer proficiency levels of the special education pre-service teacher's who have a computer and who do not have a computer. These findings obtained from the research show parallelism with the findings obtained from the studies conducted by Çobanoğlu (2008) and Sezer (2011) and Kartal, (2019). When the studies on this subject are examined, significant differences were found in favor of pre-service teacher's who have computers in most of them (Seferoğlu & Akbıyık, 2005; Pamuk & Peker, 2009; Sezer, Yıldırım & Pınar, 2010; Yazlık, Çetin & Erdoğan, 2012; Saygıner, 2016).

Considering whether the opinions of special education pre-service teacher's about the use of technology in education and educational software differ according to the variable of access to the Internet, no significant difference was found between the computer proficiency levels of the special education pre-service teacher's who can access the Internet and those who cannot. The findings obtained from the research show parallelism with the findings of Çetin and Güngör (2012)'s research. However, when the studies on this subject were examined, it was concluded that there was a significant difference in favor of the pre-service teachers with internet access for the computer proficiency levels of the studies (Yenice ve Özden, 2015; Saygıner, 2016).

According to the findings obtained from the research, when the views of the special education pre-service teacher's about the use of technology in education and educational software show a relationship between their computer proficiency levels and their perceptions of technology use, it has been revealed that there is a low positive correlation between the technology proficiency levels of the special education pre-service teacher's and their perceptions about technology.

When the results obtained from the analysis of the qualitative data of the research are examined, the opinions of the special education pre-service teacher's about the benefits of using technology in education; It has been determined as providing faster and easier access to information, increasing the quality of education and providing the opportunity to provide visual and auditory education, which is evaluated under the other category, shortening the duration of the education. As an opposing view, answers were obtained in the form of not providing much benefit. Sadi et al. (2008) In the research they conducted, the answers of the

pre-service teachers about the benefits of using technology in the lessons are made more permanent, increase the quality of education, and motivate the lesson. The fact that he received answers saying that it does not contribute to the opposite opinion shows that similar results were obtained with the research conducted. It has been determined that the opinions of special education pre-service teacher's about the problems they experience in using technology in education are about infrastructure, using software that requires more information, and accessing correct information under the other category. Thus, there is a parallelism between the findings obtained on this subject and the research conducted by Çağıltay (2007). Opinions of special education pre-service teacher's about increasing the use of technology in education; teaching about the use of technology and educational software in education has emerged as receiving the opinions and suggestions of pre-service teacher's. Under the other category, it was determined as giving training with a video guide and giving homework. The results obtained from the research are similar to the results obtained from the studies (Göktaş, 2006; Saban, 2007; Sadi et al., 2008).

In the light of the data obtained as a result of this research, the following recommendations have been developed.

1. Studies to determine the opinions of special education pre-service teacher's about the use of technology in education and educational software should be repeated with different research groups with different variables.
2. In order to increase the knowledge of special education pre-service teacher's about technology and educational software in education, special education department and computer and instructional technology education departments should cooperate.
3. In order to increase the use of technology and educational software in education by special education pre-service teacher's, necessary teaching can be carried out with the video guide method related to the areas of technology use in education and educational software that they want students to learn.
4. In order to solve the problems of special education pre-service teacher's in the use of technology and educational software in education, universities can take solution-oriented decisions by taking the opinions and suggestions of the students.
5. It can be ensured that the courses for special education pre-service teacher's use of technology and educational software in education can be increased.

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