Self-Efficacy and Perception of Safe Internet Use of Preservice Teachers: Case of Eastern Mediterranean University, Faculty of Education

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ABSTRACT

The preservice teachers' self-efficacies and perceptions in safe internet usage are the main concentration of this study and taking these two factors into consideration a demographic and scale data will be collected. The study group comprised preservice teachers who are students at the Faculty of Education at the Eastern Mediteranean University.

In the determination of self-efficacies and perceptions of prospective teachers in their safe internet usage, the scale developed by Cavus and Ercag (2016) will be used and the study group in concern comprised prospective teachers studying at the Faculty of Education at the Eastern Mediteranean University.

The study found out that all the students use the Internet every day, where 50% of them use the Internet between one to three hours, while the rest use the Internet more than 3 hours a day. The daily amount of use is a critical factor to consider so as the safety use and management to be another factor worth examining.

Regarding the self-Efficacy levels of Pre-service teachers in terms of safe Internet use, the study showed that almost all the students can manage the safety issues while using the Internet. Also for the perception of Pre-service teachers in terms of safe Internet use, the study showed that almost all students are confident in using the Internet and dealing with safety issues.

The study showed that male students are more confident in using the Internet and they can easily manage the safety issues while using the Internet, the female students, on the other hand, have weaknesses in some safety issues.

The results showed that the first year and the fourth year students have more self-efficacy and confidence toward the safe use of the Internet. Similarly, same as the age factor, students who are less than 20 years old and the students who are older than 26, have more self-efficacy and confidence toward the safe use of the Internet than the students with age between 20 to 25 years old.

And finally; the analysis showed that the students who use the Internet less than 3 hours a day or those who use the Internet more than 6 hours a day have more self-efficacy and confidence toward the safe use of the Internet than the students who use the Internet between 4 to 6 hours a day.

Keywords: Self-Efficacy, Perception, The Internet, Safety Internet Use

ÖZ

Bu çalışmanın ana odağını hizmet öncesi öğretmen adaylarının güvenilir internet kullanımı hakkındaki öz yeterlilikleri ve bunu ne kadar kavradıkları oluşturmaktadır. Bu iki faktör göz önünde bulundurularak veriler demokrafik ve ölçekli olarak toplanmıştır. Çalışmada yer alan öğrenciler Doğu Akdeniz Üniversitesi Eğitim Fakültesi hizmet öncesi öğretmen adaylarıdır.

Bu çalışma gösterdi ki, tüm öğrencilerin İnternet'i her gün kullandığını,% 50'sinin İnternet'i bir ile üç saat arasında, geri kalanının ise İnternet'i günde 3 saatten fazla kullandığını ortaya çıkardı. Günlük kullanım miktarı, güvenlik kullanımı ve yönetimi incelemeye değer başka bir faktör olduğundan, dikkate alınması gereken kritik bir faktördür.

Güvenli internet kullanımı açısından öğretmen adaylarının öz-yeterlik düzeylerine ilişkin olarak yapılan araştırma, hemen hemen tüm öğrencilerin interneti kullanırken güvenlik sorunlarını yönetebildiğini göstermiştir. Ayrıca, öğretmen adaylarının güvenli İnternet kullanımı konusundaki algısına yönelik olarak, çalışma neredeyse tüm öğrencilerin İnternet'i kullanma ve güvenlik sorunları ile başa çıkma konusunda kendilerine güvendiklerini göstermiştir.

Çalışma ayrıca, erkek öğrencilerin İnterneti kullanma konusunda daha özgüvenli olduklarını ve interneti kullanırken güvenlik sorunlarını kolaylıkla yönetebildiklerini, diğer yandan kız öğrencilerin bazı güvenlik konularında zayıf yönleri olduğunu gösterdi.

Sonuçlar, birinci sınıf ve dördüncü sınıf öğrencilerinin İnternetin güvenli kullanımına yönelik daha fazla öz-yeterlilik ve güvene sahip olduğunu gösterdi. Benzer şekilde, yaş faktörü gibi, 20 yaşından küçük öğrenciler ve 26 yaşından büyük öğrenciler, 20-25 yaşları arasındaki öğrencilere göre İnternetin güvenli kullanımına yönelik öz-yeterlilik ve özgüvene daha fazla sahiptir.

Ve sonunda; Analiz, interneti günde 3 saatten az kullanan veya interneti günde 6 saatten fazla kullanan öğrencilerin, İnternet'i güvenli kullanım konusunda, günde 4 ila 6 saat interneti kullananlara göre daha fazla öz-yeterlilik ve güvene sahip olduğunu göstermiştir.

Anahtar Kelimeler: Öz Yeterlilik, Algılama, İnternet, Güvenili İnternet Kullanımı

DEDICATION

I would like to dedicate this work to my loving parents and sister.

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I would like to express my gratitude to my supervisor, Prof.Dr. Ersun İşçioğlu, for his continuous support and encouragement throughout the research.

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Chapter 1

INTRODUCTION

Internet, in its simplest definition, is a worldwide system of computer networks in which users can get information from other computers. Internet enable its users to send and receive e-mails, do research, download files, join discussion groups, play interactive games, employ it in education and self- improvement, for dating or friendships, last but not least, read electronic newspapers or magazines in the cyberspace. Looking at this, it can clearly be seen that more children and teenagers' started using the Internet increasingly so internet safety is becoming a worry. In order to help them stay safe in their online activities, it is important to fully understand the nature of these risks and how to overcome or minimize the possible dangers related (Farrukh, Sadwick, and Villasenor, 2014).

It is clear that Internet is playing a very crucial role in our lives and we have reached at a point that it has become our "cannot do without". However, when you start using the net you also should accept that it is a “whole package deal” and the kind of information accessed is valid information and invalid information at the same time. At this point, it is utterly important to know and utilize the benefits of the Internet's convenience and productivity while staying away from the risks involved. Safety is the most important requirement for the users whether online or off. Parents and children are frequent Internet users and each uses it for different reasons. While doing so, many may face online hazards with which they are not well-equipped to deal with,

resulting in behavioral, educational, physical and emotional issues all of which become a challenge for families (Cavus and Ercag, 2016).

Nowadays, there is a growing trend towards enhancing teaching and assessment using technology. Students are encouraged to utilize internet based resources in their researches and use the internet search to reinforce their class work (Hooper and Rieber, 1995; Der Wu and Chen, 2008; cited in Lazarinis 2010). Students use the internet to gather information and do research in various subjects. Students need information for their exams, curriculum, etc. Teacher use the Internet as a teaching tool to increase student achievement. Having clear learning targets, they guide students to specific web sites, and have them focus on the content. Teachers can be successful in teaching with the Internet. None the less, they need to be equipped with clear knowledge of preventing their students and themselves against the possible risks involved in using the net based education.

Easy access to digital media is changing the way children learn and live. As the internet use of teenagers increase, so do their participation in unsafe online activities and exposure to risks. Most of the online activities they indulge themselves in include emailing, social networking (MySpace), online messaging, publishing and sharing information about their personal activities, and using secret codes while messaging with friends. These kind of activities have a potential of becoming risky when they join together with the population of the same generation and revealing personal information like school's name, email address, self-photo with a stranger or even meeting that person(s) in real life. They can even be subjects of online- harassment, online- sex sites and even attempts of unblocking filters or blocks (Issac et al. 2004, Lenhart et al. 2007, Mitchell et al. 2008, Dowdell et al. 2009; cited in Dowdell 2011).

Therefore, it is important to know what children do online and since today's youth spend most of their time on computers, video games, camera phones, i-pods, MP3 players etc. it is, therefore, important to fully understand the importance of providing cyber safety awareness to increase students' knowledge of online safety. It is crucial to provide Internet safety, thus preventing negative outcomes by taking and giving positive anticipatory guidance that would include the child and the adolescent so that parents and educators have a better chance of succeeding in promoting safe Internet use for all members of the cyberspace.

Digital technology is taking hold of the home environment. Computers and communication technologies and entertainment media are all taking their places in homes (Sutherland et. al., 2000; cited in Odabasi, 2005), thus, bringing along the demand for the promotion of safer Internet behaviors for all ages as part of a healthy lifestyle and outcomes. According to Davidson and Ritchie (1994; cited in Odabasi, 2005), technology is now the children's new educational requirement of learning and this process via computer use should be supported by parents. Papert (1998; cited in Odabasi, 2005) sees it as a demanding force for the sake of their children to create a rich learning environment with computers at home. In summary, there are unique challenges associated with online use, Internet safety and risk behaviours. As a child moves into adolescence, he/she will move towards wishing to be independent and his/her use of technology and online activities change. Professionals working with children, parents and families, such as educators, healthcare providers, law enforcement and clinicians, can have an on-going, open discussion about Internet use and behaviours among family members. Similar issues regarding Internet safety and discussions should include parents as well. Applying sensible Internet rules and open dialogues between parents and children is important for Internet safety. Parents should

talk with their child about the Internet; specifically asking their child about their online experiences, in addition, with whom and where they ‘chat’ when online. This can be useful in getting their child to share. These professionals can also provide complete support to children and parents and identify needs, what knowledge deficits they have, and develop plans for all family members to promote Internet safety (Odabasi, 2005).

Students can easily get online material from many different web locations or with search engines. They can have the knowledge by mere accident. School proxy servers and security policies clearly prevent access to sites containing adult material yet there is still a risk that adult content may be present in web sites with sport material or jokes which may include images or textual descriptions or links to such unsafe pages. “It is not possible at all times to prevent students from finding images of a sexual nature.” Particularly in languages other than theirs where search engines are likely to be weaker in image queries, students may bypass the restrictions by using search terms which are not identified as inappropriate terms by those search engines: Pedophilia and sexual harassment (Lazarinis, 2010).

According to Sun et al. (2005; cited in Liau, Khoo, & Ang, 2008) when parental monitoring is not present children send more e-mail, enter chat-room more often, and use the home Internet more. Since parents may never be available 7/24 there are of course other measures like filters giving parents and guardians a "sense of security" by helping them to be under the impression of being protected when they are not. The best filters block about 75 percent set at the highest levels. However, filters sometimes block useful information too. Many studies have proven that filters do not block many sites. A study conducted for the Kaiser Family Foundation found filters to be useless in accessing to one in ten pornography sites by intentional access, and one in three

pornography sites by accidental access. For the young it is almost no trouble to find these unblocked sites or loading software which will help bypassing filters. They may encounter filters at schools and libraries, but can still find filter free Internet access at home, friends' houses, or etc. Filters, in other words, fail to protect children from dangers and risks. They may still be the prey of potential predators, gambling, or fraud. It is therefore very important to address such issues through education. It should not be hoped to be fixed solely by technology (Liau, Khoo, & Ang, 2008).

Education becomes more dynamic when it is based, designed, delivered and received via the internet (Ealy, 1999). However, while educators merge the Internet use into their students' learning process, they are also required to protect the students from the possible dangers that would come along. For today's Internet based education, it is crucial to encourage a safe and "know-what-you-do" type of approach is of essence (Paska, 2012). In the light of this, our study will examine the possible dangers involved in the use of the Internet for educational or individual purposes and while doing so draw attention to how aware the users are and what precautions they take to protect themselves from the possible risks. In other words, what the extent of their self-efficacies is. Self-efficacy, when faced by challenges, plays a major part in all the online endeavors of preschool teachers whom we used as our test subjects in this study. Those using the Internet with a certain amount of self-efficacy will have to face these challenges in competence and are most likely to attain safer outcomes. It is important for the students to know what the results of their own or other people's actions would create. Internet safety and taking precautions are important when using the Internet. Safety means not revealing personal information, data, and identity. Students need to be educated and made aware that besides what others can do, there is also the worry of how they may harm the others. It is a whole package of responsibility they need to

take for themselves and for others. Self-efficacy and precautions require acquiring, possessing, learning and communicating by how one uses the technology (Hatlevik and Tømte, 2014).

So, the self-efficacy can be defined as the degree of the person to manage and solve the problems and the issues facing him/her in the work or study. Therefore, the perception of the students is another important factor for they feel their degree of confidence while they use the Internet. These two factors are very important for more safe use of the Internet.

1.1 Aim of the Study

The main aim of this study is to investigate the degree of the self-efficacies and perceptions of preservice teachers in safe internet usage. The better self-efficacies and the higher positive perceptions of the users, the less risks the face while using the Internet.

1.1.1 Research Questions

The study aimed to find answers to the following questions;

1- What is the self-Efficacy and perception levels of Pre-service teachers in terms of safe

2- Is there any significant difference between gender and safe Internet use?

3- Is there any significant difference between age and safe Internet use?

4- Is there any significant difference between class and safe Internet use?

5- Is there any significant difference between department and safe Internet use?

6- Is there any significant difference between daily Internet usage and safe Internet use?

1.2 Significance of the Study

In this study, the prospective teachers in the Education Faculty of the Eastern Mediterranean University in North Cyprus, considered as the case to analyze. Initially a questionnaire with 30 questions was sent to all students in the Education Faculty of the Eastern Mediterranean University regarding their awareness on safety in online sharing sites, malicious software, web safety and Internet engineering, and PC safety.

The data collected is reviewed and a list of online risks and how aware they are from this is assembled based on the previous studies and on information gathered. The list of online risks can be used by researchers, teachers or prospective teachers, educational technologists, web designers, school administrators and libraries to have a better understanding of the internet safety issues. Further, this list could be used for shaping future research projects on the internet usage for children.

1.3 Limitations of the Study

In this study, quantitative research methods are used and the data collection is limited to students of the Faculty of Education in Eastern Mediterranean University. The total population of Eastern Mediterranean University Faculty of Education is 1390 but there were just 107 who participated in the complete study.

The following are the Limitations of the study:

1- A limited number of responses may be lost from the students since it is voluntary participation.

2- The participants may give biased responses to some survey items.

3- The questionnaire applied online to students during the spring term of 2019-20.

1.4 Definition of Terms

Definition of some terms which were used in this study;

- **Self-Efficacy:** Self-efficacy reflects the confidence of the person in his/her ability to cope and/or solve problems he/she faces in the work.
- **Perception:** Perception is the way the person perceive and understand things or problems depending on the way he/she thinks and believes.
- **The Internet:** Internet is a global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardized communication protocols.
- **Safety Internet Use:** Internet Safety is the act of maximizing a user's awareness of personal safety and security risks to private information and property associated with using the internet, and the self-protection from computer crime.

Chapter 2

LITERATURE REVIEW

This Chapter explains in brief some related work in the literature in the area of safe Internet usage and the risks users may face while they are using the Internet. The literature focused on the self-efficacies and perceptions of users regarding the safety in online sharing sites, malicious software, web safety and Internet engineering, and PC safety.

2.1 Related Research on Safety in Online Sharing Sites

King, Walpole, and Lamon (2007) in their study investigated internet gangs and their effects on adolescence. They gathered data from over 100,000 students and 137 gang members. In their study, they pointed out the possible dangers of the increasing number of internet users and the amount of accessible content causing an increasing public concern especially on youth as internet allows a growing number of unmonitored and uncensored content exposure that cannot be reached at schools and in communities. The main reason for online activities are for gaining respect and acceptance thus making them get involved in gangs. Gangs, on the other hand, are online for acknowledgment and respect too. As a result internet becomes a platform joining people from varied backgrounds and this platform of young people create interaction between peers of all behavioral backgrounds, thus anti-social behavior increases. Solution is not yet possible and internet access cannot be blocked and more research is needed on establishing a safer Internet. This, at the moment, is only possible if parents take control and implement safety at home. Parents need to be educated and

become more knowledgeable when implementing safety measures for their children at earliest. The study clearly states that education is a must to protect children from online harms.

Moreno, Egan, Bare, Young and Cox (2013) in their article, point out to the multiple benefits of internet to adolescents as it promotes social and academic help and worldwide connections. However, they also state concerns of possible risks as well. The American Academy of Pediatrics' (AAP) concern is children's social media use that that brings along risks of personal space violation and cyber bullying. In a survey it was observed that one-third of the adolescents shared their internet password with friends and one fourth never knew the content uploaded would not be deleted even if they thought they did so. They were unaware of the risks involved while they gave away their contact info like home address, uploaded photographs, shared intimate sexual behavior and drugs they used. The popular social media sites like Facebook and Twitter because youth spent substantial amount of time on the internet. However, there is yet no evidence-based approach to educate youth about the dangers of being online, nor is there data to help in making decisions at which age such education should begin. The purpose of this study was to investigate who would be the main stake-holders on internet safety education school teachers included. They also investigated the right age internet safety education should start.

Odabaşı (2005), in her article suggests that parents should also form the concern of studies when talking about the Internet. Student-school-home context forms the basis of a triangle in an educational setting. The parents' perceptions regarding the effects of new technologies, favorably or unfavorably, influence the changes that are taking place (Vryzas and Tsitouridou, 2002; cited in Odabasi, 2005).

Lazarinis (2010) in his paper tries to give an overall insight on factors regarding unsafe internet access for students after examining the recent studies that showed quite a sum of potential online risks for students. It is important to know potential risks and understanding of threats involved in internet activities if children are to be protected. After a research, he made a list of online problems based on this unsupervised internet access of high school students and did an analysis. He came up with a list of different problems for unsupervised internet access for children. The results showed that students got more exited with online risks and visited sites by disregarding implemented restrictions and visited these preferred sites. Online risks referred to content such as paedophilia or offensive language which has an adverse physical or mental effect on the development of children. If these risks involve children or adolescents then they are creating problems and require safer internet surfing by students since web pages and blogs are under no control.

Tynes (2007) According to the article using internet has benefits besides the safety issues. The essay defines social networking spaces, chat rooms, and discussion boards used by the adolescents as part of the learning process that reinforce and complement anything taught in classrooms. It is, however, an informal way of learning but effective and is delivered via peer interaction. In a discussion forum a person when the sequencing his entries and responses is careful in constructing his or her own posting since others are going to read it. Therefore, a faulty argument will raise objections.

Sonja Baumer (2006; cited in Tynes, 2007) of the University of California at San Diego, who is part of the Digital Youth Research project, says: "YouTube is a multi-voiced means of informal learning". They learn about global social and political things and develop opinions and new notions of civil society. When teens create or recreating

online, this helps adolescent development (Greenfield, Gross, Subrahmanyam, Suzuki, & Tynes, 2006; cited in Tynes, 2007). This helps them to understand who they are, or guide them in who they want to become, and on their values, strengths, and weaknesses. They are also able to evaluation and compare one with others aiding adolescents to manage the world. Thus, making them become more sensitive to others. Online interactions and with the new knowledge attained from others, adolescents start seeing another person's point of view. Teens' interactions with others and sharing similar problems get social support. Sometimes for teens contacting someone outside of their family and peers at school is better and such settings online provided that opportunity.

2.2 Related Research on Malicious Software

Stahl and Fritz (2002), administered a questionnaire, consisting of multiple choice, fill-in choices and two open-ended questions comprising 45 questions in total. Its aim was to gather information on safe internet usage of adolescents' by looking at the type of internet activities of 213 private school students (from seventh to tenth grades). The purpose of this study was of three folds: to understand possible risks involving unsafe internet use, to inform parents or others adults in concern about the safe usage of internet , to draw their attention to the importance of monitoring by taking responsibility of their children's safe use of internet. They used frequencies in identifying internet use patterns as safe and unsafe practices. One-fourth of the results yielded unsafe practices variant by gender and internet experience. The questionnaire revealed one-fourth of the students having adult acknowledgement regarding internet safety. Insecurity was due to communications with strangers and sharing personal information, after which they expressed remorse of breaking computer rules. Their insecurities were due to unwanted sexual advances, undesired contact with

pornographic or “sick” sites and begging for financial commitments online. The authors saw an urge for more adolescence education on not to share personal or contact info and means to prevent unwanted sites or personal contacts. Adults should have a continuous involvement and supervision in adolescents’ Internet use for their safety.

Fleming, Greentree, Cocotti-Muller, Elias, and Morrison (2006), this study involved Australian teenagers and aimed at investigating the amount of teens’ exposure to unsafe material and behavior online. It investigates if blocking and filtering software might help eliminate such risks. It also tried to find out if educating parents regarding Internet safety might help keep young people safe online. It is suggested that teens use the internet more often than the adults (Subrahmanyam, Kraut, Greenfield, & Gross, 2001; cited in Fleming, at. el. 2006). The main reasons of their use is e-mailing and chatting, doing homework, playing games and listening to music, sports, entertainment and hobbies and to shop (Pastore, 2002; Rosenbaum et al., 2000; cited in Fleming, at. el. 2006). Their main internet activities involve potential risks by becoming open subjects to sexual predators and pornographic and sexual violence and their effects. It is important that parents are aware of Internet safety and protect their children (Fleming & Rickwood, 2004; cited in Fleming, at. el. 2006) by receiving more community education (Stanley, 2001; cited in Fleming, at. el. 2006). The amount of Internet blocks and filters are that parents implement on their children's internet activities vary. 25% of 7th to 12th graders said that their parents applied filters on their computer (Rideout, Roberts, & Foehr, 2005; cited in Fleming, at. el. 2006). It is also possible that children may not know if their parents put blocks or filters.

According to Kuhn (1991; cited in Tynes, B. M., 2007) teens at times get help online from friends with their homework and for courses to take. When they have no siblings

or parents who can help them, this is a good way. In case of lack of enough peer groups to provide help for all the answers, an extended online peer group is of value. The research also mentions the pros of the video and online games as an aid to help develop cognitive skills like spatial visualization, the ability to read images and being able to manage multiple sections in a visual field at once. Such skills are important to help in subjects like science, mathematics, language arts, and music. When students interact with cross-cultures such interracial interactions contribute to informal education as well. They learn about different life styles, discrimination, get a different perspective, even how to speak languages other than their own. It may become a more effective education from textbooks because learning is a self- constructed learning.

In a recent study by Suzuki and Calzo (2004; cited in Tynes, 2007), it was found out that romantic relationships are amongst mostly discussed topics on teens' discussion board, and sexual health on a sexuality discussion board. They gave critical info and feedback, suggestions, and emotional support to adolescents visiting them. These are such topics which otherwise they may feel uncomfortable to discuss with their family members or even with peers when face to face. For online safety reasons, Banning Social Online Environments to protect their children, some parents use filtering software like CyberPatrol, NetNanny, and IPrism to monitor interaction and block “dangerous” sites. They may even make teens to visit social networking sites or to use the Internet only for school-related reasons. Some parents even make their children use the computer in a place at home where they can monitor their online activities as much as possible. But nothing is impossible if teens set their minds onto something. Filters sometimes cannot block access. Adolescents can find ways to access to peer culture, by using the computer at a friend’s house. In many cases, banning access to certain sites is not always feasible. What can be done? The children should be made

aware of the risks involved in online socializing in order to develop strategies for staying safe in cyberspace. One important strategy is to use privacy settings to minimize the risks. In order to increase the online risk awareness of children it is important to. It is up to the parents and teachers to have an honest and straight forward discussion regarding the risks of the Internet as well as of its potential benefits. In an adult-teen dialogue, grown-ups need to show more concern to their children's developmental worries. If personal issues are not discussed at home or at school, it is likely to be discussed with strangers, both online and off. Privacy settings involve limiting or blocking certain persons from contact, or to cut off further contact with a problematic. Teens should be educated regarding the kind and amount of safe information to be given out when meeting new people. Instead of banning or filtering certain sites it is best for the adolescents to avoid certain Internet spaces and in order to be able to do so, adults should teach them how to recognize fake behavior of predators who may be frequently visiting such sites.

2.3 Related Research on Web Safety Internet Engineering

In Taiwan, the government encourages Internet use and wants teachers to use computers and the Internet in their curricula. Students are also encouraged to use information technologies in their studies and daily life (Chou and Peng, 2011). However, introducing students to the Internet has many disadvantages. The easy access to inappropriate content becomes easy and those with no or little training cannot tell valid information from invalid information (Wong, 1995; cited in Chou and Peng, 2011) or can encounter content not approved by parents (Iannotta, 2001; Wishart, 2004; Ybarra & Mitchell, 2005; cited in Chou and Peng, 2011). Teachers, on the other hand, should be well-equipped with the potential problems of insecure use of the Internet. This can only be prevented if schools guide students towards the safe use of

the Internet. Therefore, some surveys were conducted to understand the level of teachers' experiences and knowledge on internet safety issues. It was seen that majority of teachers were not well-informed of the Internet safety instructions during their teacher training or had the opportunity to receive training in such issues. They also discuss possible work to be done and give recommendations.

Dowdell (2011), Parents are not only using the Internet as a medium to communicate with their children and families, but also as means of being connected with teachers, school administration, extra-curricular activities, sports, music and parent–teacher organizations. The Internet is also used for helping with homework, following school assignments or projects and so forth. Staying in touch is increasingly becoming being a parent. With the increased internet use of parents, it becomes a crucial thing to learn or use new equipment and parenting skills in order to keep their children safe. In today's world the Internet forms the major concern. Studies show that Internet behaviors of adolescents and youth are the main concern of the literature. Most parents participated in Internet safety behaviors because they wanted to keep their child's online activities safe by knowing how to check computer histories and using filters or blocks on their home computers. The students, on the other hand, reported 'never' being checked (63% of the boys and 72% of the girls) (Dowdell, 2011). This finding supports the literature that majority of the adolescents believe their parent is not checking (Mitchell et al. 2005, Wang et al. 2005; cited in Dowdell, 2011). One fourth of these students stated that they erase online histories regularly, (Dowdell, 2011 Blackwell Publishing online histories). It is important to help parents identify realistic goals for Internet safety for their children for their development in the age of technology. A good finding is that children share with their parents their negative

online experiences (Dowdell 2011); yet under one fourth of the parents know where to report online dangers.

Butterfield (2003) in her article mentioned the Internet Safety Group (ISG) in New Zealand which developed a nation-wide program to integrate safe communication technologies in society. The reason is to keep children and young people safe. The article points out the importance of educating young people and parents about the internet risks in pro-active programs. Initially the program started at schools because they wanted to reach students, teachers and families at one go. They sent the Internet Safety Kit to every school in New Zealand in March, 2000. The Kit provided schools with the information they needed in developing safe Internet activities for a safer learning environment. The Internet Safety Kit highlighted awareness about cyber-victimization. Since the implementation of the Kit one large school reported a notable decrease in the numbers of student and staff activities of unsafe sites.

Paska (2012), in his paper mentions the "National Education Technology Plan." issued by the United States Department of Education in November 2010. The National Education Technology Plan was the result of public input over time. It targets learning, assessment, teaching, productivity and infrastructure which are important when using technology. Buying and knowing how to use technology is not the only important thing but also it is essential to know and think how such resources can impact teaching and learning. The "National Education Technology Plan" demands schools to concentrate on Internet safety, cyber-bullying, and on any other unsafe online activities. The "Plan" discusses "Balancing Connectivity and Student Safety on the Internet," and the children's Internet Protection Act (CIPA) wants schools with Internet access or internal network connections to have filters and to block students' access to harmful content,

obscenity and pornography included. It is of an importance to guarantee student safety on the Internet, but sometimes filters while protecting students may also block reaching safe learning content like blogs, wikis, and social networks having the potential to support student learning. If teachers discuss and share their own experiences and questions about Internet safety, then they will succeed in instructing their students in this area better.

2.4 Related Research on PC Safety

As suggested by Davidson and Ritchie (1994; cited in Odabasi 2005), parental support is a crucial factor in the educational side of computers. Papert (1998; cited in Odabasi 2005) defines it as a demand for change in schools enriching learning experiences in the presence of thoughtful parents who have necessary knowledge for such progress. With proper training parents can resolve their handicaps in computer issues (Kersh, 1999; cited in Odabasi 2005). This study focuses on parents' views on Internet use. university graduates. Research revealed that the educational level of parents greatly affected the children's use of new technologies (Shashaani, 1994; Vryzas and Tsitouridou, 2002; Healy and Schilmoeller, 1985; cited in Odabasi 2005). An overall look to the survey showed that parents, regarding safety, preferred at home use of the internet for their children. Parents favored filters but not so much concerned about them using their true identities online. Educational wise, parents believe that Internet enhances their children's academic achievement and research skills. This research, in general, showed that parents in general see the positive aspects of Internet in social life and do not reflect a pessimistic view on the effects of the Internet on the family relations. However they are not that supportive of Internet cafes which they find unsafe. The author thinks and tries to raise a concern regarding internet use risks and try to bring awareness regarding internet use of teens in Turkey.

Chou and Peng (2011) in their study investigated the positive and negative effects of internet on many people's lives. They stated that by the realization of possible risks the Taiwan Ministry of Education started an educational awareness of Internet Safety (TAIS) project in elementary and middle schools for their teachers in 2000. This is a government owned project targeting safety in internet in Chinese. The project is a design based research (DBR) collecting data and analysing it in order to build a policy. The article presents the methodology used and gives suggestions.

Berrier (2007) in this study investigated children's, aged 10-14, and online activities and how much they are aware of ethics, and risks in addition to parental awareness of their Internet use. In the study, data gathered from 446 surveys completed by 6, 7 and 8th-grade students in a rural school in East Tennessee. Children when using internet have no protection to ensure their safety and protection (Cyber Security Industry Alliance, 2005; cited in Berrier 2007). Taylor (2001; cited in Berrier 2007), said many children are left unsupervised and without the proper knowledge to ensure online safety. The study found out that eighth-grade students had more unsafe online activities more often than sixth or seventh graders and seventh graders did more often than sixth graders. The findings of this study were important said the writer of the article because educators, rule-setters, parents and children themselves will understand how children use the Internet at home from a child’s point of view and give an insight to parents and professional educators to develop strategies for their children's protection from internet related dangers. The data presented that the youth who participated in this research knew about the risks involved with publishing personal information online. None the less the author says that by looking at these it cannot be assumed that adolescents are completely protecting themselves from risk of victimization because when creating email addresses and screen names they used

personally identifiable information. Any predator could easily find and harm a child only with this much information. Therefore, it is important to guarantee children's total understanding of the consequences of their online actions.

Chapter 3

METHODOLOGY

The main idea of this research is to survey the perceptions and self-efficacy of Faculty of Education students of Eastern Mediterranean University regarding the safety use of Internet.

3.1 Research Methodology

A quantitative research methodology was used for this study. A survey was administered to all students studying in the Faculty of Education in the Eastern Mediterranean University. Quantitative method aims to estimate the problem by generating statistical information. The term 'survey' in research is usually applied to a methodology designed to collect data from a particular population, or a sample, and classically uses questionnaires or an interview as the survey tool (Robson, 1993). Furthermore, surveys are used to collect data from persons about themselves, their households, or about larger organization groups such as schools, offices. Sample surveys are significant instruments for gathering and analyzing data from the selected individuals. Therefore, a quantitative research method is basically about collecting numerical data to elucidate a precise phenomenon.

3.2 Sample

In this study, although it was aimed to reach all the undergraduate students of the Faculty of Education, only 107 students contributed to this research and those students are considered to be as a convenient sample amongst the faculty students in the Eastern Mediterranean University to be used for the analysis.

The demographic data distribution of the study are as follows;

Table 1: Gender distribution

	Frequency	Percent
Female	35	32.70
Male	72	67.30

As shown in table 1, the 107 students contributed to this study consisted of 35 female and 72 male students.

Table 2: Age distribution

	Frequency	Percent
Age < 20 Years old	26	24.30
20 Years old <= Age <= 25 Years old	48	44.90
Age > 25 Years old	33	30.80

Meanwhile, 26 of the students were under the age of 20, 48 were between the age of 20 and the age of 25, and the rest 33 students were above the age of 25 years old as shown in table 2.

Table 3: Class distribution

	Frequency	Percent
Freshman	25	23.40
Sophmore	16	15.00
Junior	31	29.00

Senior	35	32.70

According to the students' class, 25 were first year, 16 were second year, 31 were third year and 35 students were in the fourth year class as shown in table 3.

Table 4: Daily Internet Use distribution

	Frequency	Percent
Daily Internet use < 1 Hour	0	00.00
1 Hour <= Daily Internet use <= 3 Hour	53	49.50
4 Hour <= Daily Internet use <= 6 Hour	32	29.90
Daily Internet use > 6 Hour	22	20.60

As shown in table 4, the daily Internet use of the students showed that almost 50 % of the students use the Internet between 1 to 3 hours daily where 30% use the Internet between 4 to 6 hours, and the rest 20% use the Internet more than 6 hours a day.

Table 5: Department distribution

	Frequency	Percent
Computer and Educational Technologies	17	15.90
Educational Sciences	35	32.70
Fine Art Education	18	16.80
Mathematics and Science Education	9	8.40
Special Education	7	6.50
Elementary Education	8	7.50
Turkish and Social Sciences Education	7	6.50

Foreign Language Education	6	5.60

Table 5 shows the distribution of the students in this research according to their Department as 17 in the department of Computer and Educational Technologies, 35 in the department of Educational Sciences, 18 in the department of Fine Art Education, 9 in the department of Mathematics and Science Education, 7 in the department of Special Needs Education, 8 in the department of Elementary Education, 7 in the department of Turkish and Social Sciences Education, and 6 were in the department of Foreign Language Education.

3.3 Instrument

In this study, a survey developed by Cavus and Ercag (2016), was used to examine the student's perceptions and self-efficacy toward the safe use of Internet in their daily life. The instrument used in the survey questionnaire is divided into two sections. The first section: item1-5, questions about the demographic data of the students as gender, age, class, daily Internet use and the department of the students. Section two: consisting of four different parts of a total of 30 Likert scale type questions with five alternative answers (Strongly Disagree, Disagree, Neutral, Agree, Stongly Agree);

Part 1: Questions related to Security on Social Sharing Sites

Part 2: Questions related to Malicious Software

Part 3: Questions related to Web Security & Social Engineering

Part 4: Questions related to Computer Security

3.4 Data Collection

The Questionnaire administered online to all Faculty of Education students in the Eastern Mediterranean University, where 107 students in total out of the 1390 have answered and submitted the online questionnaire.

3.5 Method of Analysis

The data analysis involved examining the surveys for perfection and completeness, coding and keying data into a database in Statistical Package for the Social Sciences (SPSS), and performing a descriptive analysis according to frequency distributions and descriptive statistics. Frequency tables and descriptive statistics are constructed to display the results in respect to each of the research questions. T-Test and Anova were also used in the analysis to examine the relationship significance between the dependent and the independent variables. Correlation tables were constructed to see the correlation between the items asked in the questionnaire.

3.6 Reliability and Validity

The total population of the Faculty of Education in the Eastern Mediterranean University in spring semester 2020 was about 1390 students. So Sample size (N) is significant enough to achieve reliability, validity and to generalize the result. Signifying competency of the population and satisfactory sample error are the main standards for the sample size. So N>= 50 + 8m (M = independent variable) for multiple correlation. The "M" used in this research is the number of the independent variables. When m= 5, approximately 90 students is sufficient for the study. According to the above, the sample size of the study is satisfactory enough for this study for the statistical analyses applied in this study.

The reason of the adaptation of the scale used in this study was that the Cronbach's alpha reliability coefficient was 0.95.

In this study, the reliability was measured by SPSS to find Cronbach's alpha reliability coefficient of 0.99 for the questionnaire items, which shows that the questionnaire is a highly reliable instrument.

Chapter 4

FINDINGS AND DISCUSSIONS

In this chapter, the results obtained from the analysis of the data are used to solve and interpret the studies' research questions.

4.1 Self-Efficacy and Perception of Safe Internet Use of Preservice Teachers

The distribution of the answers according to the Likert scale questionnaire items were divide into four categories, each of which has 4 alternative answers, aiming at measuring the degree of agreement of the students to each question.

Table 6: Frequency distribution to questionnaire items of Security on Social Sharing Sites

Part I: Security on Social Sharing Sites	AD	D	N	A	AA	mean
I can take the necessary precautions to prevent Trojans from entering my computer	0	0	17	24	66	4.46
I can protect my computer from worms	0	28	7	16	56	3.93
I can prevent viruses from getting on my computer	0	29	6	52	20	3.59
I can protect my password from key-loggers	0	35	72	0	0	2.67

I can protect myself from spyware	0	28	7	16	56	3.93
When infected, I can clean my computer	0	0	17	24	66	4.46
I can prevent malware from infecting my computer	0	29	6	52	20	3.59
I can create a very secure password	0	0	35	72	0	4.67
I can use Microsoft Security Basics	0	0	35	72	0	3.67

AD: Absolutely Disagree, D: Disagree, N: Neutral, A: Agree, AA: Absolutely Agree

Table 6 shows frequencies of safety use of respondents to the first category related to Security on Social Sharing Sites.

90 (84%) respondents out of 107 agreed on that they can “I can take the necessary precautions to prevent Trojans from entering my computer”, 28 (26%) disagreed while 72 (67%) agreed that they can “I can protect my computer from worms”, 29 (27%) disagreed while 72 (67%) agreed that they can “I can prevent viruses from getting on my computer”, 35 (32%) disagreed that they can “I can protect my password from key-loggers”, 28 (26%) disagreed while 72 (67%) agreed that they can “I can protect myself from spyware”, 90 (84%) agreed on that they can “When infected, I can clean my computer”, 29 (27%) disagreed while 72 (67%) agreed that they can “I can prevent malware from infecting my computer”, 72 (67%) agreed that they can “I can create a very secure password”, 72 (67%) agreed that they can “I can use Microsoft Security Basics”.

Table 7: Frequency distribution to questionnaire items of Malicious Software

Part 2: Malicious Software	AD	D	N	A	AA	mean
I can block requests of people I do not know / want on social networking sites	0	28	7	16	56	3.93
I can hide my profile information from people I don't want on social networking sites	0	29	6	52	20	3.59
I can protect my personal information that I share on social networking sites from people	0	0	35	72	0	4.67
I can hide the information I share on social networking sites from people	0	28	7	16	56	3.93
I can share videos and photos on social networking sites that won't hurt reputation	0	0	17	24	66	4.46
I can share information on social networking sites that will not harm others	0	29	6	52	20	3.59
I can create a secure password for social networking sites	0	0	31	76	0	4.71
I can take necessary security measures against security breaches on social networking sites	0	28	7	16	56	3.93

AD: Absolutely Disagree, D: Disagree, N: Neutral, A: Agree, AA: Absolutely Agree

Table 7 shows the frequencies of the safety use of respondents to the second category related to Malicious Software.

28 (26%) respondents out of 107 disagreed while 72 (67%) agreed that “I can block requests of people I do not know / want on social networking sites”, 29 (27%) disagreed while 72 (67%) agreed that “I can hide my profile information from people I don’t want on social networking sites”, 72 (67%) agreed that “I can protect my personal information that I share on social networking sites from people”, 28 (26%) disagreed while 72 (67%) agreed that “I can hide the information I share on social networking sites from people”, 90 (84%) agreed on that “I can share videos and photos on social networking sites that won’t hurt reputation”, 29 (27%) disagreed while 72 (67%) agreed that “I can share information on social networking sites that will not harm others”, 76 (71%) agreed that “I can create a secure password for social networking sites”, 28 (26%) disagreed while 72 (67%) agreed that “I can take necessary security measures against security breaches on social networking sites”.

Table 8: Frequency distribution to questionnaire items of Web Security & Social Engineering

Part 3: Web Security & Social Engineering	AD	D	N	A	AA	mean
I can protect myself against social engineering attacks by email	0	0	17	24	66	4.46
I can protect myself from social engineering attacks from internal camera pens and glasses	0	29	6	52	20	3.59
I can protect emails against ID attacks	0	0	35	72	0	4.67
I can take necessary measures against deceptive emails	0	0	35	72	0	4.67
I can show the difference between HTTP and HTTPS	0	0	17	24	66	4.46

I can take the necessary precautions when using interactive banking on the Internet	0	28	7	16	56	3.93
I can take necessary security measures against spam emails	0	29	6	52	20	3.59

AD: Absolutely Disagree, D: Disagree, N: Neutral, A: Agree, AA: Absolutely Agree

Table 8 shows the frequencies of safety use of respondents to the third category related to Web Security & Social Engineering.

90 (84%) respondents out of 107 agreed that they can I can protect myself against social engineering attacks by email, 29 (27%) disagreed while 72 (67%) agreed that they can I can protect myself from social engineering attacks from internal camera pens and glasses, 72 (67%) agreed that they can I can protect emails against ID attacks, 72 (67%) agreed that they can I can take necessary measures against deceptive emails, 90 (84%) agreed on that they can I can show the difference between HTTP and HTTPS, 28 (26%) disagreed while 72 (67%) agreed that they can I can take the necessary precautions when using interactive banking on the Internet, 29 (27%) disagreed while 72 (67%) agreed that they can I can take necessary security measures against spam emails.

Table 9: Frequency distribution to questionnaire items of Computer Security

Part 4: Computer Security	AD	D	N	A	AA	mean
I can add a password for my Windows Operating system	0	0	17	24	66	4.46
I can update my security files	0	0	78	29	0	4.27

I can add a password for my files	0	28	7	16	56	3.93
I can take necessary security measures to log on my computer	0	29	6	52	20	3.59
In case of problems, I can create backup files	0	0	35	72	0	3.67
I can protect my personal files	0	0	17	24	66	4.46

AD: Absolutely Disagree, D: Disagree, N: Neutral, A: Agree, AA: Absolutely Agree

Table 9 shows the frequencies of the safety use of respondents to the forth category related to Computer Security.

90 (84%) respondents out of 107 agreed that they can I can add a password for my Windows Operating system, 29 (27%) agreed that they can I can update my security files, 28 (26%) disagreed while 72 (67%) agreed that they can I can add a password for my files, 29 (27%) disagreed while 72 (67%) agreed that they can I can take necessary security measures to log on my computer, 72 (67%) agreed that they can In case of problems, I can create backup files, 72 (67%) agreed that they can I can protect my personal files.

The general allover means for the questionnaire items are shown in the following table:

Table 10: Calculated means of the questionnaire items

	Mean
I can take the necessary precautions to prevent Trojans from entering my computer	4.46
I can protect my computer from worms	3.93
I can prevent viruses from getting on my computer	3.59

I can protect my password from key-loggers	2.67
I can protect myself from spyware	3.93
When infected, I can clean my computer	4.46
I can prevent malware from infecting my computer	3.59
I can create a very secure password	4.67
I can use Microsoft Security Basics	3.67
I can block requests of people I do not know / want on social networking sites	3.93
I can hide my profile information from people I don't want on social networking sites	3.59
I can protect my personal information that I share on social networking sites from people	4.67
I can hide the information I share on social networking sites from people	3.93
I can share videos and photos on social networking sites that won't hurt reputation	4.46
I can share information on social networking sites that will not harm others	3.59
I can create a secure password for social networking sites	4.71
I can take necessary security measures against security breaches on social networking sites	3.93
I can protect myself against social engineering attacks by email	4.46
I can protect myself from social engineering attacks from internal camera pens and glasses	3.59
I can protect emails against ID attacks	4.67
I can take necessary measures against deceptive emails	4.67
I can show the difference between HTTP and HTTPS	4.46

I can take the necessary precautions when using interactive banking on the Internet	3.93
I can take necessary security measures against spam emails	3.59
I can add a password for my Windows Operating system	4.46
I can update my security files	4.27
I can add a password for my files	3.93
I can take necessary security measures to log on my computer	3.59
In case of problems, I can create backup files	3.67
I can protect my personal files	4.46
General Mean	**4.00**

The ideal mean for such a Likert scale questionnaire, consisting of 30 questions each of 5 alternative answers, is calculated by the half distance between the lowest and the highest scores (low:30, high:150) which is the score 90 having a mean of 0.50 (%50).

But as shown in table 10, the calculated mean value of the questionnaire items is 4.00 (%80), which is far more than the expected average, leading to that the students have high level of self-efficacy and a high level of perceptions and confidence toward the safe Internet usage.

4.2 Is There Any Significant Difference between Gender and Safe Internet Use?

In order to find whether there is any significant difference between gender and safe Internet use, T-test analysis were carried out.

Table 11: T-Test analysis of gender with the questionnaire items

		Mean	Sig.
I can take the necessary precautions to prevent Trojans from entering my computer	Female	3.51	0.00
	Male	4.92	
I can protect my computer from worms	Female	2.20	0.00
	Male	4.78	
I can prevent viruses from getting on my computer	Female	2.17	0.00
	Male	4.28	
I can protect my password from key-loggers	Female	2.00	0.00
	Male	3.00	
I can protect myself from spyware	Female	2.20	0.00
	Male	4.78	
When infected, I can clean my computer	Female	3.51	0.00
	Male	4.92	
I can prevent malware from infecting my computer	Female	2.17	0.00
	Male	4.28	
I can create a very secure password	Female	4.00	0.00
	Male	5.00	
I can use Microsoft Security Basics	Female	3.00	0.00
	Male	4.00	
I can block requests of people I do not know / want on social networking sites	Female	2.20	0.00
	Male	4.78	

I can hide my profile information from people I don't want on social networking sites	Female	2.17	0.00
	Male	4.28	
I can protect my personal information that I share on social networking sites from people	Female	4.00	0.00
	Male	5.00	
I can hide the information I share on social networking sites from people	Female	2.20	0.00
	Male	4.78	
I can share videos and photos on social networking sites that won't hurt reputation	Female	3.51	0.00
	Male	4.92	
I can share information on social networking sites that will not harm others	Female	2.17	0.00
	Male	4.28	
I can create a secure password for social networking sites	Female	4.83	**0.06**
	Male	4.65	
I can take necessary security measures against security breaches on social networking sites	Female	2.20	0.00
	Male	4.78	
I can protect myself against social engineering attacks by email	Female	3.51	0.00
	Male	4.92	

I can protect myself from social engineering attacks from internal camera pens and glasses	Female	2.17	0.00
	Male	4.28	
I can protect emails against ID attacks	Female	4.00	0.00
	Male	5.00	
I can take necessary measures against deceptive emails	Female	4.00	0.00
	Male	5.00	
I can show the difference between HTTP and HTTPS	Female	3.51	0.00
	Male	4.92	
I can take the necessary precautions when using interactive banking on the Internet	Female	2.20	0.00
	Male	4.78	
I can take necessary security measures against spam emails	Female	2.17	0.00
	Male	4.28	
I can add a password for my Windows Operating system	Female	3.51	0.00
	Male	4.92	
I can update my security files	Female	4.23	**0.50**
	Male	4.29	
I can add a password for my files	Female	2.20	0.00
	Male	4.78	
I can take necessary security measures to log on my computer	Female	2.17	0.00

	Male	4.28	
In case of problems, I can create backup files	Female	3.00	0.00
	Male	4.00	
I can protect my personal files	Female	3.51	0.00
	Male	4.92	

As seen in table 11, Gender variable shows a meaningfully significant difference to all questionnaire items except questions “I can create a secure password for social networking sites” and “I can update my security files”.

The calculated average mean for female was 2.94 while for male students was 4.59, which shows that the male students have higher level of confidence and better skills in safety issues while using the Internet.

4.3 Is There any Significant Difference between Age and Safe Internet Use?

In order to find whether there is any significant difference between age and safe Internet use, ANOVA analysis were carried out.

Table 12: ANOVA analysis of Age with the questionnaire items

		Mean	Std. Deviation	Sig.
I can take the necessary precautions to prevent Trojans from entering my computer	Age < 20	4.65	.62	0.00
	20 <= Age <= 25	4.04	.82	
	Age > 25	4.91	.29	

I can protect my computer from worms	Age < 20	4.23	1.27	0.00
	20 <= Age <= 25	3.17	1.24	
	Age > 25	4.82	.39	
I can prevent viruses from getting on my computer	Age < 20	3.73	.96	0.00
	20 <= Age <= 25	3.02	1.10	
	Age > 25	4.30	.47	
I can protect my password from key-loggers	Age < 20	2.77	.43	0.00
	20 <= Age <= 25	2.40	.49	
	Age > 25	3.00	0.00	
I can protect myself from spyware	Age < 20	4.23	1.27	0.00
	20 <= Age <= 25	3.17	1.24	
	Age > 25	4.82	.39	
When infected, I can clean my computer	Age < 20	4.65	.63	0.00
	20 <= Age <= 25	4.04	.82	
	Age > 25	4.91	.29	
I can prevent malware from infecting my computer	Age < 20	3.73	.96	0.00
	20 <= Age <= 25	3.02	1.14	
	Age > 25	4.30	.47	
I can create a very secure password	Age < 20	4.77	.43	0.00
	20 <= Age <= 25	4.40	.49	
	Age > 25	5.00	0.00	
I can use Microsoft Security Basics	Age < 20	3.77	.430	0.00
	20 <= Age <= 25	3.40	.49	
	Age > 25	4.00	0.00	
	Age < 20	4.23	1.27	0.00

I can block requests of people I do not know / want on social networking sites	20 <= Age <= 25	3.17	1.24	
	Age > 25	4.82	.39	
I can hide my profile information from people I don't want on social networking sites	Age < 20	3.73	.96	0.00
	20 <= Age <= 25	3.02	1.14	
	Age > 25	4.30	.47	
I can protect my personal information that I share on social networking sites from people	Age < 20	4.77	.43	0.00
	20 <= Age <= 25	4.40	.49	
	Age > 25	5.00	0.00	
I can hide the information I share on social networking sites from people	Age < 20	4.23	1.27	0.00
	20 <= Age <= 25	3.17	1.24	
	Age > 25	4.82	.39	
I can share videos and photos on social networking sites that won't hurt reputation	Age < 20	4.65	.63	0.00
	20 <= Age <= 25	4.04	.82	
	Age > 25	4.91	.29	
I can share information on social networking sites that will not harm others	Age < 20	3.73	.96	0.00
	20 <= Age <= 25	3.02	1.14	
	Age > 25	4.30	.47	
I can create a secure password for social networking sites	Age < 20	4.62	.49	0.01
	20 <= Age <= 25	4.85	.36	
	Age > 25	4.58	.50	
I can take necessary security measures against security	Age < 20	4.23	1.27	0.00
	20 <= Age <= 25	3.17	1.24	

breaches on social networking sites	Age > 25	4.82	.39	
I can protect myself against social engineering attacks by email	Age < 20	4.65	.63	0.00
	20 <= Age <= 25	4.04	.82	
	Age > 25	4.91	.29	
I can protect myself from social engineering attacks from internal camera pens and glasses	Age < 20	3.73	.96	0.00
	20 <= Age <= 25	3.02	1.14	
	Age > 25	4.30	.47	
I can protect emails against ID attacks	Age < 20	4.77	.43	0.00
	20 <= Age <= 25	4.40	.49	
	Age > 25	5.00	0.00	
I can take necessary measures against deceptive emails	Age < 20	4.77	.43	0.00
	20 <= Age <= 25	4.40	.49	
	Age > 25	5.00	0.00	
I can show the difference between HTTP and HTTPS	Age < 20	4.65	.63	0.00
	20 <= Age <= 25	4.04	.82	
	Age > 25	4.91	.29	
I can take the necessary precautions when using interactive banking on the Internet	Age < 20	4.23	1.27	0.00
	20 <= Age <= 25	3.17	1.24	
	Age > 25	4.82	.39	
I can take necessary security measures against spam emails	Age < 20	3.73	.96	0.00
	20 <= Age <= 25	3.02	1.14	
	Age > 25	4.30	.467	

I can add a password for my Windows Operating system	Age < 20	4.65	.629	0.00
	20 <= Age <= 25	4.04	.82	
	Age > 25	4.91	.29	
I can update my security files	Age < 20	4.31	.47	**0.66**
	20 <= Age <= 25	4.29	.46	
	Age > 25	4.21	.41	
I can add a password for my files	Age < 20	4.23	1.27	0.00
	20 <= Age <= 25	3.17	1.24	
	Age > 25	4.82	.39	
I can take necessary security measures to log on my computer	Age < 20	3.73	.96	0.00
	20 <= Age <= 25	3.02	1.14	
	Age > 25	4.30	.47	
In case of problems, I can create backup files	Age < 20	3.77	.43	0.00
	20 <= Age <= 25	3.40	.49	
	Age > 25	4.00	0.00	
I can protect my personal files	Age < 20	4.65	.63	0.00
	20 <= Age <= 25	4.04	.82	
	Age > 25	4.91	.29	

As seen in table 12, Age variable show a meaningfully significant difference to all questionnaire items except question “I can update my security files”.

The calculated average mean for students with age less than 20 was 4.21, students who are between 20 and 25 the average mean was 3.58, while for the students who are older than 25 years old was 4.60, which shows that the students who are less than 20 years

and those who are older than 25 years old have higher level of confidence and better skills in safety issues while using the Internet.

4.4 Is There any Significant Difference between Class and Safe Internet Use?

In order to find whether there is any significant difference between class and safe Internet use, ANOVA analysis were carried out.

Table 13: ANOVA analysis of class with the questionnaire items

		Mean	Std. Deviation	Sig.
I can take the necessary precautions to prevent Trojans from entering my computer	Freshman	4.64	.64	0.00
	Sophmore	3.56	.63	
	Junior	4.26	.81	
	Senior	4.91	.28	
I can protect my computer from worms	Freshman	4.20	1.29	0.00
	Sophmore	2.50	.82	
	Junior	3.74	1.41	
	Senior	4.57	.65	
I can prevent viruses from getting on my computer	Freshman	3.72	.98	0.00
	Sophmore	2.44	.63	
	Junior	3.35	1.23	
	Senior	4.23	.59	
I can protect my password from key-loggers	Freshman	2.76	.44	0.00
	Sophmore	2.06	.25	
	Junior	2.58	.50	

	Senior	2.97	.17	
I can protect myself from spyware	Freshman	4.20	1.29	0.00
	Sophmore	2.50	.81	
	Junior	3.74	1.41	
	Senior	4.57	.65	
When infected, I can clean my computer	Freshman	4.64	.64	0.00
	Sophmore	3.56	.63	
	Junior	4.26	.81	
	Senior	4.91	.284	
I can prevent malware from infecting my computer	Freshman	3.72	.98	0.00
	Sophmore	2.44	.63	
	Junior	3.35	1.22	
	Senior	4.23	.59	
I can create a very secure password	Freshman	4.76	.43	0.00
	Sophmore	4.06	.25	
	Junior	4.58	.502	
	Senior	4.97	.17	
I can use Microsoft Security Basics	Freshman	3.76	.43	0.00
	Sophmore	3.06	.25	
	Junior	3.58	.50	
	Senior	3.97	.17	
I can block requests of people I do not know / want on social networking sites	Freshman	4.20	1.29	0.00
	Sophmore	2.50	.81	
	Junior	3.74	1.41	
	Senior	4.57	.65	

I can hide my profile information from people I don't want on social networking sites	Freshman	3.72	.98	0.00
	Sophmore	2.44	.63	
	Junior	3.35	1.22	
	Senior	4.23	.59	
I can protect my personal information that I share on social networking sites from people	Freshman	4.76	.43	0.00
	Sophmore	4.06	.25	
	Junior	4.58	.50	
	Senior	4.97	.16	
I can hide the information I share on social networking sites from people	Freshman	4.20	1.29	0.00
	Sophmore	2.50	.81	
	Junior	3.74	1.41	
	Senior	4.57	.65	
I can share videos and photos on social networking sites that won't hurt reputation	Freshman	4.64	.63	0.00
	Sophmore	3.56	.62	
	Junior	4.26	.81	
	Senior	4.91	.28	
I can share information on social networking sites that will not harm others	Freshman	3.72	.98	0.00
	Sophmore	2.44	.62	
	Junior	3.35	1.22	
	Senior	4.23	.59	
I can create a secure password for social networking sites	Freshman	4.60	.50	**0.54**
	Sophmore	4.75	.44	
	Junior	4.77	.42	
	Senior	4.71	.45	
	Freshman	4.20	1.29	0.00

I can take necessary security measures against security breaches on social networking sites	Sophmore	2.50	.81	
	Junior	3.74	1.41	
	Senior	4.57	.65	
I can protect myself against social engineering attacks by email	Freshman	4.64	.63	0.00
	Sophmore	3.56	.62	
	Junior	4.26	.81	
	Senior	4.91	.28	
I can protect myself from social engineering attacks from internal camera pens and glasses	Freshman	3.72	.98	0.00
	Sophmore	2.44	.62	
	Junior	3.35	1.22	
	Senior	4.23	.59	
I can protect emails against ID attacks	Freshman	4.76	.43	0.00
	Sophmore	4.06	.25	
	Junior	4.58	.50	
	Senior	4.97	.16	
I can take necessary measures against deceptive emails	Freshman	4.76	.43	0.00
	Sophmore	4.06	.25	
	Junior	4.58	.50	
	Senior	4.97	.16	
I can show the difference between HTTP and HTTPS	Freshman	4.64	.63	0.00
	Sophmore	3.56	.62	
	Junior	4.26	.81	
	Senior	4.91	.28	
	Freshman	4.20	1.29	0.00
	Sophmore	2.50	.81	

I can take the necessary precautions when using interactive banking on the Internet	Junior	3.74	1.41	
	Senior	4.57	.65	
I can take necessary security measures against spam emails	Freshman	3.72	.98	0.00
	Sophmore	2.44	.62	
	Junior	3.35	1.22	
	Senior	4.23	.59	
I can add a password for my Windows Operating system	Freshman	4.64	.63	0.00
	Sophmore	3.56	.62	
	Junior	4.26	.81	
	Senior	4.91	.28	
I can update my security files	Freshman	4.32	.47	**0.86**
	Sophmore	4.31	.47	
	Junior	4.26	.44	
	Senior	4.23	.42	
I can add a password for my files	Freshman	4.20	1.29	0.00
	Sophmore	2.50	.81	
	Junior	3.74	1.41	
	Senior	4.57	.65	
I can take necessary security measures to log on my computer	Freshman	3.72	.98	0.00
	Sophmore	2.44	.62	
	Junior	3.35	1.22	
	Senior	4.23	.59	
In case of problems, I can create backup files	Freshman	3.76	.43	0.00
	Sophmore	3.06	.25	

	Junior	3.58	.50	
	Senior	3.97	.16	
I can protect my personal files	Freshman	4.64	.63	0.00
	Sophmore	3.56	.62	
	Junior	4.26	.81	
	Senior	4.91	.28	

As seen in table 13, Class variable shows meaningful significant difference to all questionnaire items except question “I can create a secure password for social networking sites” and question “I can update my security files”.

The calculated average mean for first year students was 4.21, second year students was 3.10, third year students was 3.88 while for the fourth year students was 4.52, which shows that the first year and the fourth year students have higher level of confidence and better skills in safety issues while using the Internet.

4.5 Is There any Significant Difference between Daily Internet Usage and Safe Internet Use?

In order to find whether there is any significant difference between daily Internet usage and safe Internet use, ANOVA analysis were carried out.

Table 14: ANOVA analysis of daily Internet usage with the questionnaire items

	Daily Usage (Hours)	Mean	Std. Deviation	Sig.
	1 <= use <= 3	4.91	.29	0.00

I can take the necessary precautions to prevent Trojans from entering my computer	4 <= use <= 6	3.47	.50	
	use > 6	4.82	.39	
I can protect my computer from worms	1 <= use <= 3	4.74	.44	0.00
	4 <= use <= 6	2.22	.42	
	use > 6	4.50	1.05	
I can prevent viruses from getting on my computer	1 <= use <= 3	4.30	.46	0.00
	4 <= use <= 6	2.19	.39	
	use > 6	3.91	.86	
I can protect my password from key-loggers	1 <= use <= 3	3.00	0.00	0.00
	4 <= use <= 6	2.00	0.00	
	use > 6	2.86	.35	
I can protect myself from spyware	1 <= use <= 3	4.74	.44	0.00
	4 <= use <= 6	2.22	.42	
	use > 6	4.50	1.05	
When infected, I can clean my computer	1 <= use <= 3	4.91	.29	0.00
	4 <= use <= 6	3.47	.50	
	use > 6	4.82	.39	
I can prevent malware from infecting my computer	1 <= use <= 3	4.30	.46	0.00
	4 <= use <= 6	2.19	.39	
	use > 6	3.91	.86	
I can create a very secure password	1 <= use <= 3	5.00	0.00	0.00
	4 <= use <= 6	4.00	0.00	
	use > 6	4.86	.35	

I can use Microsoft Security Basics	1 <= use <= 3	4.00	0.00	0.00
	4 <= use <= 6	3.00	0.00	
	use > 6	3.86	.35	
I can block requests of people I do not know / want on social networking sites	1 <= use <= 3	4.74	.44	0.00
	4 <= use <= 6	2.22	.42	
	use > 6	4.50	1.05	
I can hide my profile information from people I don't want on social networking sites	1 <= use <= 3	4.30	.46	0.00
	4 <= use <= 6	2.19	.39	
	use > 6	3.91	.86	
I can protect my personal information that I share on social networking sites from people	1 <= use <= 3	5.00	0.00	0.00
	4 <= use <= 6	4.00	0.00	
	use > 6	4.86	.35	
I can hide the information I share on social networking sites from people	1 <= use <= 3	4.74	.44	0.00
	4 <= use <= 6	2.22	.42	
	use > 6	4.50	1.05	
I can share videos and photos on social networking sites that won't hurt reputation	1 <= use <= 3	4.91	.29	0.00
	4 <= use <= 6	3.47	.50	
	use > 6	4.82	.39	
I can share information on social networking	1 <= use <= 3	4.30	.46	0.00
	4 <= use <= 6	2.19	.39	

sites that will not harm others	use > 6	3.91	.86	
I can create a secure password for social networking sites	1 <= use <= 3	4.68	.47	**0.30**
	4 <= use <= 6	4.81	.39	
	use > 6	4.64	.49	
I can take necessary security measures against security breaches on social networking sites	1 <= use <= 3	4.74	.44	0.00
	4 <= use <= 6	2.22	.42	
	use > 6	4.50	1.05	
I can protect myself against social engineering attacks by email	1 <= use <= 3	4.91	.29	0.00
	4 <= use <= 6	3.47	.50	
	use > 6	4.82	.39	
I can protect myself from social engineering attacks from internal camera pens and glasses	1 <= use <= 3	4.30	.46	0.00
	4 <= use <= 6	2.19	.39	
	use > 6	3.91	.86	
I can protect emails against ID attacks	1 <= use <= 3	5.00	0.00	0.00
	4 <= use <= 6	4.00	0.00	
	use > 6	4.86	.35	
I can take necessary measures against deceptive emails	1 <= use <= 3	5.00	0.00	0.00
	4 <= use <= 6	4.00	0.00	
	use > 6	4.86	.35	
	1 <= use <= 3	4.91	.29	0.00
	4 <= use <= 6	3.47	.50	

I can show the difference between HTTP and HTTPS	use > 6	4.82	.39	
I can take the necessary precautions when using interactive banking on the Internet	1 <= use <= 3	4.74	.44	0.00
	4 <= use <= 6	2.22	.42	
	use > 6	4.50	1.05	
I can take necessary security measures against spam emails	1 <= use <= 3	4.30	.46	0.00
	4 <= use <= 6	2.19	.39	
	use > 6	3.91	.86	
I can add a password for my Windows Operating system	1 <= use <= 3	4.91	.29	0.00
	4 <= use <= 6	3.47	.50	
	use > 6	4.82	.39	
I can update my security files	1 <= use <= 3	4.32	.47	**0.53**
	4 <= use <= 6	4.22	.42	
	use > 6	4.23	.42	
I can add a password for my files	1 <= use <= 3	4.74	.44	0.00
	4 <= use <= 6	2.22	.42	
	use > 6	4.50	1.05	
I can take necessary security measures to log on my computer	1 <= use <= 3	4.30	.46	0.00
	4 <= use <= 6	2.19	.39	
	use > 6	3.91	.86	
In case of problems, I can create backup files	1 <= use <= 3	4.00	0.00	0.00
	4 <= use <= 6	3.00	0.00	
	use > 6	3.86	.35	

I can protect my personal files	1 <= use <= 3	4.91	.29	0.00
	4 <= use <= 6	3.47	.50	
	use > 6	4.82	.39	

As seen in table 14, daily Internet usage variable show a meaningfully significant difference to all questionnaire items except questions “I can create a secure password for social networking sites” and “I can update my security files”.

The calculated average mean for students who use Internet less than 3 hours a day was 4.59, students who use Internet between 3 to 6 hours a day was 2.94, while the students who use Internet more than 6 hours a day was 4.38, which shows that the students who use the Internet less than 3 hours or those who use the Internet more than 6 hours a day have higher level of confidence and better skills in safety issues while using the Internet.

4.6 Is There any Significant Difference between Department and Safe Internet Use?

In order to find whether there is any significant difference between department and safe Internet use, ANOVA analysis were carried out.

Table 15: ANOVA analysis of department with the questionnaire items

	Sig.
I can take the necessary precautions to prevent Trojans from entering my computer	.74
I can protect my computer from worms	.81

I can prevent viruses from getting on my computer	.89
I can protect my password from key-loggers	.85
I can protect myself from spyware	.81
When infected, I can clean my computer	.74
I can prevent malware from infecting my computer	.89
I can create a very secure password	.85
I can use Microsoft Security Basics	.85
I can block requests of people I do not know / want on social networking sites	.81
I can hide my profile information from people I don't want on social networking sites	.89
I can protect my personal information that I share on social networking sites from people	.85
I can hide the information I share on social networking sites from people	.81
I can share videos and photos on social networking sites that won't hurt reputation	.74
I can share information on social networking sites that will not harm others	.89
I can create a secure password for social networking sites	.43
I can take necessary security measures against security breaches on social networking sites	.81
I can protect myself against social engineering attacks by email	.74
I can protect myself from social engineering attacks from internal camera pens and glasses	.89
I can protect emails against ID attacks	.85
I can take necessary measures against deceptive emails	.85

I can show the difference between HTTP and HTTPS	.74
I can take the necessary precautions when using interactive banking on the Internet	.81
I can take necessary security measures against spam emails	.89
I can add a password for my Windows Operating system	.74
I can update my security files	.67
I can add a password for my files	.81
I can take necessary security measures to log on my computer	.89
In case of problems, I can create backup files	.85
I can protect my personal files	.74

As seen in table 15, the department variable show no significant difference to all questionnaire items.

Chapter 5

CONCLUSION

The aim of this study was to examine the self-efficacy and the perceptions, of the students in The Faculty of Education in the Eastern Mediterranean University, toward the safety use of the Internet.

The research method and the analysis of this study were achieved by using quantitative techniques for data collection and data analysis.

For data collection, a questionnaire consisting of demographic questions as independent variables and dependent variables as Likert scale type questions were used to find the degree of self-efficacy and the perception of the students regarding safety Internet use.

The questionnaire was administered online to all registered undergraduate students of the Faculty of Education in the Eastern Mediterranean University in the spring term of 2019/2020 academic year.

Regarding the first research question of the self-Efficacy levels and perceptions of Pre-service teachers in terms of safe Internet use, the study showed that almost all the students can manage the safety issues while using the Internet and almost all students are confident in using the Internet and dealing with safety issues.

The study showed that male students can cope easily and manage the safety issues while using the Internet, the female students, on the other hand, have weaknesses in some safety issues, was the conclusion for the second research question of the relation of gender and safe Internet use.

The results showed that the first year and the fourth year students have more self-efficacy and confidence toward the safe use of the Internet. Similarly, same as the age factor, students who are less than 20 years old and the students who are older than 26, have more self-efficacy and confidence toward the safe use of the Internet than the students with age between 20 to 25 years old.

The department variable had no significant meaningful difference with the safe Internet usage.

And finally; the analysis showed that the students who use the Internet less than 3 hours a day or those who use the Internet more than 6 hours a day have more self-efficacy and confidence toward the safe use of the Internet than the students who use the Internet between 4 to 6 hours a day.

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APPENDICES

Appendix A: Questionnaire English version

Self-Efficacy and Perception of Safe Internet Use of Preservice Teachers: Case of Eastern Mediterranean University, Faculty of Education

Gender: a) Male b) Female

Age: a) < 20 b) 20 ≤ Age ≤ 25 c) >25

Department: .....

Class: a) 1 b) 2 c) 3 d) 4

Daily Internet Use (Hour): a) < 1 b) 1 ≤ Use ≤3 c) 4 ≤ Use ≤6 d) > 6

	Choose the most appropriate	Absolutely Disagree	Disagree	Neutral	Agree	Absolutely Agree
Security on Social Sharing Sites						
1	I can take the necessary precautions to prevent Trojans from entering my computer.					
2	I can protect my computer from worms.					
3	I can prevent viruses from getting on my computer.					
4	I can protect my password from key-loggers.					
5	I can protect myself from spyware.					
6	When infected, I can clean my computer.					
7	I can prevent malware from infecting my computer.					
8	I can create a very secure password.					
9	I can use Microsoft Security Basics.					

Malicious Software						
10	I can block requests of people I do not know / want on social networking sites.					
11	I can hide my profile information from people I don't want on social networking sites.					
12	I can protect my personal information that I share on social networking sites from people					
13	I can hide the information I share on social networking sites from people.					
14	I can share videos and photos on social networking sites that won't hurt reputation.					
15	I can share information on social networking sites that will not harm others.					
16	I can create a secure password for social networking sites.					
17	I can take necessary security measures against security breaches on social networking sites.					
Web Security & Social Engineering						
18	I can protect myself against social engineering attacks by email.					
19	I can protect myself from social engineering attacks from internal camera pens and glasses.					
20	I can protect emails against ID attacks.					
21	I can take necessary measures against deceptive emails					

22	I can show the difference between HTTP and HTTPS.					
23	I can take the necessary precautions when using interactive banking on the Internet.					
24	I can take necessary security measures against spam emails.					
Questions related to Computer Security						
25	I can add a password for my Windows Operating system.					
26	I can update my security files.					
27	I can add a password for my files.					
28	I can take necessary security measures to log on my computer.					
29	In case of problems, I can create backup files.					
30	I can protect my personal files.					

Appendix B: English Consent Form

Participant Consent Form

Self-Efficacy and Perception of Safe Internet Use of Preservice Teachers: Case of Eastern Mediterranean University, Faculty of Education

Dear participant,

Please take a few minutes to read the following information on this research carefully before you agree to participate. **If at any time you have a question regarding the study, please feel free to ask the researcher who will provide more information**.

This study is being conducted by Tekin Dabaj under the supervision of Prof.Dr. Ersun İşçioğlu. It aims to investigate Self-Efficacy and Perception of Safe Internet Use of Preservice Teachers: Case of Eastern Mediterranean University, Faculty of Education. The study should take no more than 10 minutes to complete.

Of course, you are not obliged to participate in this research and are free to refuse to participate. You may also withdraw from the study at any point without giving any reason. In this case, all of your responses will be destroyed and omitted from the research. If you agree to participate in and complete the study, all responses and questionnaires will be treated confidentially. Your name and identifying information will be kept securely and separately from the rest of your questionnaire. Data will be stored for a maximum of six years after the study. Once the data is analyzed, a report of the findings may be submitted for publication.

To signify your voluntary participation, please complete the consent form below.

CONSENT FORM
Research Title: Self-Efficacy and Perception of Safe Internet Use of Preservice Teachers: Case of Eastern Mediterranean University, Faculty of Education
Name of Researcher: Tekin Dabaj, tekin.dabaj@outlook.com

Please tick the boxes to confirm that you agree to each statement.

1. I confirm that I have read and understood the information sheet for this study and have had the opportunity to ask any questions. ☐
2. I understand that my participation is voluntary and that I may withdraw from the study at any time without explanation. ☐
3. I agree to take part in this study. ☐

_____ _____
Date Signature

If you have any concerns about the ethical conduct of this study, please inform Prof.Dr. Yücel Vural, Chair of the Research & Ethics Committee at Eastern Mediterranean University, in writing, providing a detailed account of your concern (yucel.vural@emu.edu.tr).

Appendix C: Questionnaire Turkish Version

Öğretmen Adayları İçin Güvenli İnternet Kullanımı Öz-Yeterlik ve Algı Ölçeği

Cinsiyet: a) Erkek b) Kız

Yaş: a) < 20 b) 20 ile 25 arası c) >25

Bölüm .....

Sınıf: a) 1 b) 2 c) 3 d) 4

Günlük İnternet Kullanımı (saat): a) < 1 b) 1 ile 3 c) 4 ile 6 d) > 6

	Size en uygun seçeneği seçiniz lütfen	Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum
Sosyal Paylaşım Sitelerinde Güvenlik						
1	Truva atlarının bilgisayarıma girmesini önlemek icin gerekli önlemleri alabilirim.					
2	Bilgisayarımı solucanlardan koruyabilirim.					
3	Virüslerin bilgisayarıma girmesini önleyebilirim.					
4	Keylogger'lardan şifremi koruyabilirim.					
5	Kendimi casus yazılımlardan koruyabilirim.					
6	Virus bulaştığında bilgisayarımı temizleyebilirim.					
7	Zararlı yazılımların bilgisayarıma bulaşmasını önleyebilirim.					
8	Çok guvenli bir şifre oluşturabilirim.					
9	Microsoft Güvenlik Temellerini kullanabilirim.					
Kötü Amaclı Yazılım						

10	Sosyal paylaşım sitelerinde bilmediğim / istemediğim kişilerin isteklerini engelleyebilirim.					
11	Sosyal paylaşım sitelerinde profil bilgilerimi istemediğim kişilerden gizleyebilirim.					
12	Sosyal paylaşım sitelerinde paylaştığım kişisel bilgilerimi insanlardan koruyabilirim.					
13	Sosyal paylaşım sitelerinde paylaştığım bilgileri insanlardan gizleyebilirim.					
14	Sosyal paylaşım sitelerinde itibara zarar vermeyecek video ve fotoğraf paylaşabilirim.					
15	Sosyal paylaşım sitelerinde başkaları hakkında itibara zarar vermeyecek bilgi paylaşabilirim.					
16	Sosyal paylaşım siteleri icin güvenli bir şifre oluşturabilirim.					
17	Sosyal paylaşım sitelerinde güvenlik ihlallerine karşı gerekli güvenlik önlemlerini alabilirim.					
Web Güvenliği ve Sosyal Ağ Mühendisliği						
18	Kendimi e-posta yoluyla gelen sosyal muhendislik saldırılarına karşı koruyabilirim.					
19	Kendimi dahili kamera kalemleri ve gözüklerden gelen sosyal muhendislik saldırılarından koruyabilirim.					
20	E-postaları kimlik avına karşı koruyabilirim.					
21	Aldatıcı e-postalara karşı gerekli önlemleri alabilirim.					

22	HTTP ve HTTPS arasındaki farkı gösterebilirim.					
23	İnternette interaktif bankacılık kullanırken gerekli önlemleri alabilirim.					
24	Spam e-postalarına karşı gerekli güvenlik önlemlerini alabilirim.					
Bilgisayar Güvenliği						
25	Windows İşletim sistemim icin bir şifre ekleyebilirim.					
26	Guvenlik dosyalarımı güncelleyebilirim.					
27	Dosyalarım icin bir şifre ekleyebilirim.					
28	Bilgisayarımda oturum acmak icin gerekli guvenlik önlemlerini alabilirim.					
29	Sorun olması durumunda yedek dosyalar oluşturabilirim.					
30	Kişisel dosyalarımı koruyabilirim.					

Appendix D: Turkish Consent Form

Katılımcı Onam Formu

Öğretmen adaylarının Özyeterlik ve Güvenli İnternet Kullanımı Algısı

Değerli katılımcı,

Araştırmaya katılmayı kabul etmeden once, lutfen araştırma ile ilgili aşağıda bulunan bilgileri dikkatlice okumak icin birkac dakikanızı ayırınız. **Araştırma ile ilgili herhangi bir sorunuz varsa, aşağıda iletişim bilgileri olan araştırmacıyla iletişim kurabilirsiniz.**

Bu araştırma Tekin Dabaj tarafından, Prof.Dr. Ersun işçioğlu denetimi altından yürütülmektedir. Araştırmanın Öğretmen adaylarının Özyeterlik ve Güvenli İnternet Kullanımı Algılarını araştırmaktır. Calışma, en fazla 10 dakikanızı alacaktır.

Calışmaya katılımınız zorunlu değildir ve katılmayı reddetme hakkına sahipsiniz. Çalışmadan, istediğiniz bir anda, açıklama yapmaksızın çekilme hakkına sahipsiniz. Araştırmadan çekilmeniz durumunda, yanıtlarınız yok edilecektir ve araştırmada kullanılmayacaktır. Eğer araştırmaya katılmayı ve tamamlamayı kabul ederseniz, cevaplar ve anketler **gizlilikle** korunacaktır. İsminiz ve tanımlayıcı bilgileriniz, anketin geri kalan kısımlarından ayrı olarak muhafaza edilecektir. Veriler, araştırma tamamlandıktan sonra en çok 6 yıl boyunca muhafaza edilecektir. Verilerin analizinden sonra, araştırma ile ilgili bir rapor yayınlanabilir.

Gönüllü katılımınızı belirtmek için, lütfen aşağıda bulunan bilgilendirilmiş onam formunu imzalayınız.

BİLGİLENDİRİLMİŞ ONAY FORMU

Araştırmanın Başlığı: Öğretmen adaylarının Özyeterlik ve Güvenli İnternet Kullanımı Algısı

Araştırmacının Adı: Tekin Dabaj – 19500075@emu.edu.tr

Her ifadeye katıldığınızı belirtmek için lütfen yanda bulunan kutuları işaretleriniz.

1. Bilgileri okuyup anladığımı ve soru sorma fırsatımın olduğunu onaylıyorum. ☐
2. Katılımımın gonullu olduğunu ve açıklama yapmaksızın, istediğim bir anda araştırmadan çekilebileceğimi anlıyorum. ☐
3. Bu araştırmaya katılmayı kabul ediyorum. ☐

_____ _____

Tarih İmza

Araştırmanın etiği ile ilgili bir endişeniz var ise, endişenizi detaylı bir şekilde açıklayan yazılı bir metin ile Doğu Akdeniz Üniversitesi, Araştırma ve Etik Komitesi Başkanı, Prof.Dr. Yücel Vural ile iletişime geçebilirsiniz (yucel.vural@emu.edu.tr).

Appendix E: Ethics Committee Approval Letter

Doğu Akdeniz Üniversitesi
"Erdem, Bilgi, Gelişim"
Eastern Mediterranean University
"Virtue, Knowledge, Advancement"
99628, Gazimağusa, KUZEY KIBRIS / Famagusta, North Cyprus, via Mersin-10 TURKEY
Tel: (+90) 392 630 1995
Faks/Fax: (+90) 392 630 2919
E-mail: bayek@emu.edu.tr
Etik Kurulu / Ethics Committee

Reference No: ETK00-2020-0136 27.05.2020

Subject: Your application for ethical approval.

Re: Tekin Dabaj
Faculty of Education.

EMU's Scientific Research and Publication Ethics Board (BAYEK) has approved the decision of the Ethics Board of Education (date: 22.05.2020, issue: 2020/70) granting Tekin Dabaj from the Faculty of Education to pursue with his MA thesis work titled **"Self-Efficacy and Perception of Safe Internet Use of Preservice Teachers: Case of Eastern Mediterranean University, Faculty of Education"** supervised by Prof. Dr. Ersun İşçioğlu.

Prof. Dr. Yücel Vural
Chair, Board of Scientific Research and Publication Ethics - EMU

YV/ns.