PRE-SERVICE ENGLISH LANGUAGE TEACHERS' ATTITUDES TOWARDS USING COMPUTER TECHNOLOGIES IN FOREIGN LANGUAGE TEACHING

HİZMET ÖNCESİ İNGİLİZCE ÖĞRETMEN ADAYLARININ YABANCI DİL ÖĞRETİMİNDE BİLGİSAYAR TEKNOLOJİLERİ KULLANIMINA YÖNELİK TUTUMLARI
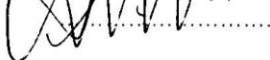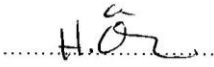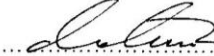
Zekiye ÖZER

Submitted to the Graduate School of Educational Sciences of Hacettepe University as a Partial Fulfillment to the Requirements for the Degree of Master in English Language Teaching Program

2017

ACCEPTANCE AND APPROVAL

This is to certify that we have read this thesis, entitled "Pre-Service English Language Teachers' Attitudes towards Using Computer Technologies in Foreign Language Teaching", and that in our opinion it is fully adequate, in scope and quality, as a thesis for the Degree of Master in the Program of English Language Teaching.

Examining Committee Members

Chairman	Prof. Dr. Arif SARIÇOBAN	
Member (*Supervisor*)	Assist. Prof. Dr. Hüseyin ÖZ	
Member	Assist. Prof. Dr. Didem KOBAN-KOÇ	

APPROVAL OF THE GRADUATE SCHOOL OF EDUCATIONAL SCIENCES

This is to certify that this thesis was approved by the aforementioned examining committee members on June 15, 2017 in accordance with the relevant articles of the Rules and Regulations of Hacettepe University Graduate Education, and accepted as a Master Thesis in the program of English Language Teaching by the Board of Directors of the Graduate School of Educational Sciences on ....../....../2017.

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Prof. Dr. Ali Ekber ŞAHİN

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16 /06 /2017

Zekiye ÖZER

DECLARATION OF ETHICAL CONDUCT

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- All information and documents have been obtained on the basis of academic rules,

- All audio-visual and written information and results have been presented according to the rules of scientific standards,

- In case of using other works, related studies have been cited in accordance with scientific standards,

- All cited studies have been fully referenced,

- I did not do any distortion in the data set,

- And any part of this thesis has not been presented as any other thesis study at this or any other university.

İmza

Zekiye ÖZER

To My Beloved Family

ACKNOWLEDGEMENTS

PRE-SERVICE ENGLISH LANGUAGE TEACHERS' ATTITUDES TOWARDS USING COMPUTER TECHNOLOGIES IN FOREIGN LANGUAGE TEACHING

Zekiye ÖZER

ABSTRACT

Computer technologies have dramatically influenced people's lives in great extent. Education policies, just like other aspects of lives, have been influenced by technological developments. Researchers; therefore, administered different studies to effectively implement technology into education.

The principle intent of the current research is to explore future English language teachers' attitudes on computer technologies in language teaching. Moreover, the study focuses on effects of gender, grade and academic average on their attitudes.

Quantitative research design was used in the study. Data is gathered by using a questionnaire distributed to pre-service ELT teachers studying at Hacettepe University, English language teaching department. 174 students studying at third and fourth grade participated to the study.

In order to identify prospective teachers' attitudes independent sample "t-test", "one way ANOVA", and "pearson product moment correlation" was applied. Moreover, descriptive analyses were used to identify candidate teachers' purposes of using computers.

The analysis of the collected data clearly demonstrates that prospective ELT teachers have positive views about computer usage in language teaching. In addition, it was found that there is not any relationship between participants' attitudes and their gender, grade, and academic average. The results of the study also demonstrate that candidate teacher use computers mostly for simple tasks such as sending e-mail and presenting presentations.

The student-teachers are aware of the importance of computer assisted language learning. In teacher education programs, courses related computer integration should be offered so that candidate language teachers can use technology in their future classes.

Advisor: Assist. Prof. Dr. Hüseyin ÖZ, Hacettepe University, Department of Foreign Language Education, Division of English Language Teaching

HİZMET ÖNCESİ İNGİLİZCE ÖĞRETMEN ADAYLARININ YABANCI DİL ÖĞRETİMİNDE BİLGİSAYAR TEKNOLOJİLERİ KULLANIMINA YÖNELİK TUTUMLARI

Zekiye ÖZER

ÖZ

Günümüzde bilgisayar teknolojileri oldukça gelişmiş ve insan yaşamını büyük ölçüde etkilemiştir. Hayatın diğer alanlarında olduğu gibi eğitim alanında bu gelişmelerin etkilerini görmek mümkündür. Araştırmacılar, teknoloji ve bilgisayarları eğitimde etkili bir şekilde nasıl kullanılacağına yönelik çalışmalar yapmaktadır.

Bu çalışma Türkiye'deki hizmet öncesi İngilizce öğretmen adaylarının dil öğretiminde bilgisayar kullanımına yönelik görüşlerini ortaya çıkarmak amacıyla yapılmıştır. Ayrıca, cinsiyet, akademik ortalama ve okudukları sınıfın adayların bilgisayara yönelik tutumlarını etkileyip etkilemediğini ortaya çıkarmaya çalışmıştır.

Çalışmada nicel araştırma yönetimi kullanılmıştır. Çalışmaya Hacettepe Üniversitesi İngiliz Dili Eğitimi bölümünde eğitim gören 174 üçüncü ve dördüncü sınıf öğrencisi katılmıştır. Öğrencilerin görüşleri anket yolu ile toplanmıştır.

Veriler bağımsız örneklem t testi ve tek yönlü anova kullanılarak analiz edilmiştir. Çalışma sonunda öğretmen adaylarının dil öğretiminde bilgisayar teknolojisi kullanımı hakkında olumlu görüşleri olduğu ortaya çıkmıştır. Cinsiyet, akademik ortalama ve öğrencilerin kaçıncı sınıfta olduğunun, öğrencilerin görüşlerine herhangi belirgin bir etki etmediği gözlenmiştir.

Aday öğretmenler dil öğretiminde bilgisayar kullanımına yönelik olumlu görüşleri olduğunu belirtmiştir. Öğretmen yetiştirme programlarına, bilgisayarın dil öğretiminde nasıl kullanılacağına yönelik dersler eklenmeli ve teknolojinin dil eğitiminde nasıl etkili bir şekilde kullanılabileceği gösterilmelidir. Ayrıca, aday öğretmenler dil öğretiminde bilgisayar kullanımı konusunda desteklenmelidir.

Anahtar sözcükler: Hizmet Öncesi İngilizce Öğretmenleri, Tutum, Bilgisayar Kullanımı, Yabancı Dil Öğretimi

Danışman: Yrd. Doç. Dr. Hüseyin ÖZ, Hacettepe Üniversitesi, Yabancı Diller Eğitimi Anabilim Dalı, İngiliz Dili Eğitimi Bilim Dalı

TABLE OF CONTENT

LIST OF TABLES

ABBREVIATIONS

CALL: Computer Assisted Language Learning

GPA: Grade Point Average

EFL: English as a Foreign Language

ELT: English Language Teaching

ICT: Information and Communication Technologies

1. INTRODUCTION

1.1. Introduction

Depending on drastic changes in technology, computers become inseparable parts of people's lives. Over the years, computer technology has improved in conjunction with the needs of people and it is started to influence almost every aspect of life such as science, business, transportation, and industry. In recent years, computers have been used in schooling. The advances in technology brought with new techniques and approaches for language education as in the other fields of education. The present study examines the attitudes of future English teachers about using computers use in language instruction. This chapter introduces background to the research and the main purpose of it. Then, the significance and also limitations are explained.

1.2. Background of the Study

Everybody knows that people's lives have dramatically changed depending on technological developments. According to Pal (2003), technology has capacity to spread and influence the whole society. Education is one of the fields been affected by those developments because it is inevitable to benefit from technological innovations in order to improve quality of education. Hence, it becomes compulsory to keep societies up with technological developments and adapt those developments into their schedule to yield technological innovations and their returns. In most part of the world today, there is a trend to scrutinize different modus to incorporate technology and education so that the returns of training activities increase. Zhang (2010) states, in this respect, that "researchers from around the world have been exploring new learning programs, often supported by new technologies, to increase student capabilities of productive and collaborative knowledge work" (p. 229). This idea is accepted by Sarıçoban (2013) and he mentioned that using computers in education provides advantages to teachers and students; that is why, the men in charge in education setting need to find ways "to integrate and internalize the use of computers as an educational tool".

Technology influenced language teaching discipline. In 1950s, people have started to adopt computers in language learning. Researchers have started to investigate how computers can assist learning process in an attempt to enhance language learning. In their work, Warschauer and Kern (2000) noted "Over the past 20 years, computer networks have introduced unprecedented opportunities for language learners to access and publish texts and multimedia materials and to communicate in new ways within and beyond the classroom" (p. 281).

One critical element of integrating technology into education is to know the crucial role of teachers in this process. Put it in another way, teachers need to know adapting technological equipment. Sheingold and Hadley (1990) supported this argument by stating the fact that teachers use computer and computer technologies effectively is important in terms of education. Since teacher directs students to use computer technologies, they possess an important role in the process of integrating computer technologies (Thomas, 2001; Rider ve Stohl Lee, 2006). In the same way, Smith & Hanson (2000) cite that "technology in education begins and ends with teachers" (p. 1). Albirini (2004, p. 2) completely agree with what Smith & Hanson (2000) propose that teachers need to be competent enough to integrate computers into their lesson. Additionally, identifying the beliefs of teachers and students about using technology during their classes is important to make technology assisted learning more effective. Whether teachers use computers is dependent on their attitudes towards computers and computer technology (Albirini, 2006; Mahdizadeh, Biemans and Mulder, 2008; Cavas, Cavas, Karaoğlan and Kışla, 2009).

Studies up to now mostly cover the importance of integrating technology into education and opinions of both teachers and students about technology integration; however, it is neglected some problems related teachers training programs. Teacher candidates learn teaching methods and techniques in the time of undergraduate years and also they learn incorporating technology while preparing their classroom activities and materials. However, one source of criticism comes from people such as Abdal-Haqq (1995) who stated that teacher trainers are not competent in using computers to accomplish the goals of curriculum and they are not a suitable model for students. In addition to this, the curriculum of pre-service education program does not comply with the technology.

Finally, teacher training programs offer courses to teach only simple computer skills. The issue dealt with by researcher is that teacher training programs is not yielding and that is why authorized people need to focus on improving quality of pre-service teacher education programs in terms technology education. Dexter and Riedel (2003) thoroughly approve of Abdal-Haqq's argument and they contend that although whether future teachers utilize computer in classroom is depended on self-efficacy, they learn how to implement technology into their future classes during their undergraduate years and for this reason teacher educators need to build those skills to prospective teachers.

When it comes to the situation in Turkey, Asan (2003, 154) pointed out that "Information Technology innovation initiatives in Turkey are still characterized by a lack of research into possible options for policies and strategies". The research is conducted to explore future English lecturers' opinions on using technology in language teaching. The reason of choosing prospective teacher as participant is that they are going to be taken up an appointment as teacher in the future and developing positive standpoint about implementing computers in lesson is necessary because this influences their use of mechanics in their school in a positively.

1.3. Statement of the Problem

Computers, as stated above, are important not only for daily life but also for education. Using computer based activities in language teaching process has many advantages especially in terms of increasing the quality of language instruction and students' motivation. Effective usage of technological tools mostly depends on teachers' and students' ideas about the benefits of computers in classroom. According to Asan (2003, p. 154), in Turkey, "Information Technology innovation initiatives in Turkey are still characterized by a lack of research into possible options for policies and strategies". Since the investigation of candidate teachers' opinions is also essential because they will practice in real classroom in future. This study; therefore, is conducted to reveal the viewpoints of EFL teacher candidates about implementing computer technology into language education. The current study will also contribute to literature by identifying candidate teachers' attitudes.

1.4. Purpose of the Study

The central emphasis of the work is to investigate the viewpoints of candidate English language teachers about using computer technology. The participants of the study are third and fourth grade students studying at Hacettepe University. A questionnaire which includes questions related to students' "level of computer use", "their attitudes toward Information and Communication Technologies", and "Computer Attributes" is used to as data collection means.

1.5. Significance of the Study

One aspect of foreign language discipline is to improve language and communication skills of learners. In order to accomplish this goal, educators need to use new techniques and teaching technologies in language education. Since prospective teachers learn utilizing computers technology in their classes during university years, it is essential to develop positive attitudes towards computer technology (Teo, 2008). Moreover, teachers have a vital role in implementing technology into classroom. For this reason, it is significant to know future lecturers' opinions on computer implementation into language training courses. This study; therefore, is useful because it presents the views of preservice ELT teachers towards adapting mechanics.

An ultimate goal of the existing study is to show specifically possible English language teachers' views about using technology in their profession in Turkey. That is why; the conclusion of the work will provide current attitudes of prospective English language trainers and considering their attitudes, authorities and policymaker can make arrangements in preservice English language teacher training program related to using technology in teaching language.

1.6. Research Questions

The study addresses the specified research questions:

1. What do the participants of the study use computer for?

2. What are future ELT teachers' overall attitudes related to using computers?

3. Is there a relationship between future teachers' attitudes and their gender, GPA and garde levels?

4. Is there any correlation between the participants' attitudes computers and computer use in language classes?

1.7. Assumptions and Limitations of the Study

The main assumptions are as follows:

1. All students participated in study willingly.

2. Participants give objective answers to questionnaire.

3. The sample of the study can represent all pre-service ELT teachers in Turkey.

The limitations of the work are:

1. The participants are only third and fourth grade students studying at Hacettepe University.

2. It was limited to the items in the questionnaire.

3. The study is limited to only participants studying in 2016-2017 academic year.

1.8. Definition of Terms

The following terms are used during the study:

Computer: "A machine that processes information, usually in the form of numeric data, according to a set of instructions" (Newby, Stepich, Lehman & Russell, 2006, p. 306).

Computer Assisted Language Learning (CALL): "The search for and study of applications of the computer in language teaching and learning" (Levy, 1997, p. 1).

Technology: "The systematic application of scientific or other organized knowledge to practical tasks" (Galbraith, 1967, 12, cited in Newby, Stepich, Lehman &Russell, 2000, 13).

Attitude: "Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly & Chaiken, 1993).

1.9. Conclusion

Background of the research is presented in this part. The main emphasis is mentioned. Research questions are introduced. Moreover, scope along with the

importance of the study is underlined. Finally, limitations of the study are presented.

2. LITERATURE REVIEW

2.1. Introduction

Previous studies related to using computer technology in language teaching will be mentioned in this section. Firstly, it focuses on the brief information about foreign language teaching. Secondly, language teaching and technology are presented and finally, teachers' ideas about using computer in their future courses and studies about topic are presented.

2.2. Second / Foreign Language Teaching

Throughout the history, since people living all around the world need to communicate with each other, learning a foreign language become a requirement. In order to reach the level of developed countries, it is essential to know at least one foreign language. For this reason, necessity of a knowing a foreign language continues to be relevant even today's societies.

In view of situation in Turkey, policymakers put a premium on second/foreign language teaching. According to Göktürk (1982), in our country, teaching foreign language comes to the light as a result of progress of civilization. The importance given to knowing a second/foreign language increases both in education and in business world. Authorities add foreign language courses into curriculum for primary, secondary and high schools. The principal intent of this policy is providing a probability to students so that they can receive education in world standards. Thanks to these courses, students are expected to graduate as knowing at least one foreign language. Nevertheless, in some cases, knowing one foreign language is not enough and for that reason, people try to learn more than one language. When this demand is considered, people start to language training courses; use online websites prepared for language teaching and buy language learning software. Moreover, educators try to implement different techniques so that the needs of learners are met.

2.1.1. A Short History of Language Teaching

From the past to present people give importance to knowing more than one language; however, preeminently in the twentieth century, it became a hot topic among researchers. In today's world, although English is globally accepted

language, almost 500 years ago, especially in western world, Latin was used as dominant language in education, commerce and religion (Richards & Rodgers, 2014). Depending on political changes in Europe, Latin was started to lose its importance and other languages such as English, France, and Italian gained importance as both spoken and written language (Richards & Rodgers, 2014).

After those languages was started to taught in school at Europe, in order to teach them, educators applied the same methods used to teach Latin. Therefore, until nineteenth century, translating of sentences, and learning grammatical rules and structures, as well as memorizing the vocabulary items was the primary focus of the textbooks (Richards & Rodgers, 2014). This method was called as grammar translation method (Richards & Rodgers, 2014. However, in time, it was seen that this method does not meet the needs of people wanting to learn a language and also changing world because with grammar translation method, especially listening and speaking skills cannot be improved. In order to improve effectiveness of language teaching programs, depending on both innovations and the changing needs of people, different techniques and methods are tried to be asserted (Richards and Rodgers, 2014). To give an example, outbreak of World War II shaped the people's language learning needs expectations because soldiers need to be proficient in target language in a short time. Under these circumstances, traditional grammar translation method lost its importance and as a result new language teaching method called audio lingual method was introduced (Richards and Rodgers, 2014). As is also understood from this case, owing to the reasons such as the effects of globalization and innovations in technology, as well as global spread of English, educators are obliged to review the traditional methods. As a result, they adopt new methods in language teaching.

Richards and Rodgers (2014) listed language teaching methods accepted by researchers as follows;

- "Grammar translation method"

- "The audio-lingual method"

- "Communicative language teaching"

- "Content based instruction and content and language integrated learning"

- "Whole language"

- "Competency –based language teaching, standards, and the common European framework of references"

- "Task-based language teaching"

- "Text-based instruction"

- "The lexical approach"

- "Multiple intelligences"

- "Cooperative language learning"

- "The natural approach"

- "Total physical response"

- "The silent way"

- "Community language learning"

- "Suggestopedia"

2.3. Language teaching and technology

Technology affects every part of human lives. Today, having qualifications of the requirements of knowledge based society is important and that is why, it become compulsory to find new approaches in education system. For this reason, using computer technologies is at the top of the agenda because it is claimed that using technology in education increases the quality of the education. As a consequence, governments invest vast sum of money in education technologies. Zhao (2007), in order to exemplify situation in U.S., asserts that:

> *the recent National Education Technology Plan released by the U.S. Department of Education stated that over the past 10 years, 99% of American K-12 schools have been connected to the Internet with a 5:1 student to computer ratio. The technology that has tremendously changed the world outside schools is now changing schools (p. 311).*

As it stated above, implementation of technology into education is important. In order to explain what authorities think about technology integration, Scheffler and Logan (2000) declares that "in an increasingly technological and interconnected world, policymakers, educators, and the general public recognize the importance of computer knowledge and skills to the daily lives of individuals and for national economic competitiveness" (p. 305). Moreover, in another study, Houghton (1997) points out that "with computers and advanced telecommunications technology

revolutionizing nearly every aspect of life and work, the question is not whether states and local districts should incorporate technology into teaching and learning but how they should do it" (Houghton, 1997, as cited in Scheffler & Logan, 1999, p. 305).

As Houghton mentioned, the worth of utilizing technological equipment in educational establishments is understood, but still there is question about how to integrate it into curriculum to optimize its advantages. That is the reason why, new studies should be conducted on technology enhanced learning. Mreover, as Hubbard (2009) puts forward

> *"As computers have come more a part of our everyday lives- and permeated other areas of education- the question is no longer whether to use computers but how. CALL researchers, developers and practitioners have a critical role in helping the overall field of second language learning come to grips with this domain (p. 1).*

Owing to the emergence of new technologies, English language teaching field undergo a range of chances because it influences students learning preferences and traditional method lost their importance. To this end, educators shape their classes in accordance with new technological tools. With the help of technology enhanced learning, well trained students can be educated (Jonassen, 2000). According to Mehlinger and Powers (2002), there are two major benefits of technology. The first one is that "technology is everywhere and therefore should be in education" and the second one is that "research has shown now and where computer-based methods are effective" (Mehlinger and Powers, 2002).

According to Lee (2000), integration computers into teaching and learning environment "(a) gives students a chance to do practice, (b) increases students motivation, (c) increases students' achievement, (d) provides authentic materials, (e) increases interaction between students and learners, (f) puts emphasis on the individual needs, (g) provides global understanding, (h) gives a chance to reach different information sources".

When it comes to using technology in language classroom, it can be observed that educators benefit from form technology in language classes in a large extent. Warschauer & Healey (1998) endorses to clarify the power of computer assisted language learning that:

> *adding a computer component has many benefits to language instruction, which included multimodal practice with feedback, individualization in a large class, pair and small group work on projects collaboratively or competitively, the fun factor,*

*variety in the resources available and learning styles used, exploratory learning
with large amounts of language data, and real-life skill building in computer use (as
cited in Karakaya, 2010).*

After communicative language learning approach is suggested, learners try to internalize the language that they want to learn and therefore, they need meaningful context so that they can interact with each other. Warschauer and Meskill's supposition is that "students need to be given maximum opportunity for authentic social interaction, not only to provide comprehensible input but also to give students practice in the kinds of communication in which they will later engage outside the classroom" (Warschauer & Meskill, 2000, p. 305). Computer technologies present opportunities to access various materials and thereby, learners can learn language effectively. To clarify, it can be thought that the computer technologies have significant importance in language learning because they provide an opportunity to reach great amount of information and an advantage of practicing their learning in an authentic environment.

Nowadays, technological tools, especially computers, are used in educational settings instead of traditional materials. With the help of technology, not only learners but also language teachers are able to reach and use authentic materials. Stroia (2012: 38) cites that "The branch of foreign language teaching, could, of course, not stand apart from this process for a long time, so that the computer technology has eventually found its entrance in this field as well". In line with the Stroia's argument, language teaching and technology complete each other in educational context. Gorjian et al (2011, p. 384) have similar findings. They state that developments "in network technologies" influenced "the learning tools in EFL contexts". Therefore, it is inevitable to integrating these tools into language teaching discipline.

In order to explain the significance of computers in language teaching, Ahmad et al. stated that

*"The computer is a servant. Its role in education is that of a medium. Far from
threatening the teacher's position, it is totally dependent on the teacher in many
ways, for example, it is unable to create educational materials without a human to
direct it. All the linguistic material and instructions for its presentation must be
specified by the teacher. It is the teacher, then who can make the computer
assume various roles." (1985, p. 2).*

When technology integration into teaching a second/foreign language program is considered, "computer assisted language learning" is the popular concept. That is

why; people carried on different studies about this subject. Kung (2002) explains the emergence of CALL as follows:

> *Inspired by the rapid development of technology from the 1980s, computer has now become an influential component of second language learning pedagogy. Educators recognize that utilizing computer technology and Computer Assisted Language Learning (CALL) programs can be convenient to create both independent and collaborative learning environments and provide students with language experiences as they move through the various stages of second language acquisition (Kung, 2002, as cited in Lai and Kritsonis, 2006, p. 2).*

According to Davies (2002) CALL "is often perceived, somewhat narrowly, as an approach to language teaching and learning in which the computer is used as an aid to the presentation, reinforcement and assessment of material to be learned, usually including a substantial interactiveelement"

CALL provides learners opportunities to improve their language skills by fostering interaction and presenting a large number of materials. When the findings of studies are analyzed, it can be noticed that computer assisted materials improve learners' language skills because it provides more authentic environment for language learning. Owing to those benefits, computers are started to be used in English language learning (Al-Awidi and Ismail, 2014).

Warschauer (1996) categorizes CALL as "behavioristic CALL", "communicative CALL", and "integrative CALL".

2.3.1. Behavioristic CALL

"Behavioristic CALL" refers to first phase of CALL. It was firstly introduced in 1950 and put into the practice between the years 1960s and 1970s. In 1960s, behavioristic approaches in learning theories were extremely popular and CALL also affected from these approaches (Warschauer, 1996). As the behavioristic approaches suggested, behavioristic CALL give importance on repetitive drills and also practice (Karakaya, 2010). According to Warschauer (1996), the reason of using drills and practice is:

- "Repeated exposure to the same material is beneficial or even essential to learning"

- "A computer is ideal for carrying out repeated drills, since the machine does not get bored with presenting the same material and since it can provide immediate non-judgmental feedback"

- "A computer can present such material on an individualized basis, allowing students to proceed at their own pace and freeing up class time for other activities" (p. 2).

2.3.2. Communicative CALL

"Communicative CALL", based on "communicative approach", is the second phase of the CALL and it refers to period between the years 1970s and 1980s (Warschauer, 1996). During this period, behavioristic theories lost their importance and instead of drill activities and educators started to use more communicative and authentic activities (Warschauer, 1996).

Underwood (1984) states that "communicative CALL" focuses on the use language and it aim to teach grammar inductively. The primary focus is the actual use of language (as cited in Warschauer, 1996). Similarly, it was claimed "the purpose of the CALL activity is not so much to have students discover the right answer, but rather to stimulate students' discussion, writing, or critical thinking" (Warschauer, 1996, p. 3).

"Communicative CALL" uses authentic activates to provide interaction that is why, instead of forcing students to find correct answers, encouraging them to discuss, communicate, and write is essential (Warschauer, 1996).

2.3.3. Integrative CALL

This is the last phase of CALL. Depending on the invention of multimedia computers and internet, integrative CALL emerged. Multimedia technology offers authentic materials to learners and by this way they are able to have real-life learning environment. The multimedia resources give an opportunity to link resources together which is called as hypermedia. With the help of hypermedia, all language skills can be practiced in the same task. Additionally, thanks to hypermedia, students are able monitor their own learning. Put it other way, it can be said that integrative CALL facilitates student centered learning (Warschauer, 1996).

 When it comes to 1990s, owing to the becoming widespread of internet, CALL activities changed because internet presented numerous language learning materials to learners. Chapelle (2001) supports this idea and notes that "CALL activities were no longer limited to interaction with the computer and with other

students in the class but included communication with learners in other parts of the world" (p. 23). Thanks to internet and computers, by communicating with the ones whose vernacular is English improve their especially oral skills.

2.4. ICT and Language Teaching

Since 1990s, people's lives have changed owing to the innovations in communication technologies and spread of the internet because they find new way to contact with different persons. To explain the importance of conversation by using internet, and computer, Warschauer (1997) mentions that "communication that is more equal in participation than face to face discussion" (p. 473)

The findings of the study conducted by Meskill and Anthony (2005) find out that "the instructional opportunities afforded by electronic communications make CMC an excellent tool to complement live foreign language classes" (p. 102). Additionally, online network provides language trainees a possibility to use target language contacting the people whose mother tongue is in online platforms (Warschauer and Meskill, 2000). Now then, computer mediated communication present a learning environment to learners to use target language accurately by feeling relax in classroom.

In other study which is about the investigation of the effectiveness of CMC on oral performance conducted by Abrams in 2003, it was found that CMC provide students get higher achievement when it compared with the ones who maintain face to face communication. Moreover, students who join CMC group have a chance to access the lexical items easily.

According to results of a study, which about CMC and task-based language learning done by Lee (2002), CMC presents learners an environment which is full of authentic materials and provides a chance to use target language. Lee mentions:

> *This study demonstrates that CMC is an effective way for learners to negotiate both meaning and form and reinforce their communication skills, especially in written communication. Online interactions did not slow student output production; rather, students strove to respond to the input quickly so that they could follow the flow. In addition, students strongly agreed that CMC helped them develop both linguistic and metalinguistic skills as they used the target language and communication strategies during the negotiation (Lee, 2002, p. 20).*

2.4.1. ICT in Turkey

According to Blake (2007), "Information and Communication Technology" (ICT) gives lots of possibilites to teach an additional language Almost all countries allocate large amount of money to integrate technology into education. Similarly, Turkey also invest great amount of money for technology integration (Özdemir, 2010; Somyürek, Atasoy & Özdemir, 2009). In turkey, after foundation of "Specialized Commission on Computer Education at Secondary Schools" by "Ministry of National Education", technology assisted education started (OECD, 2005, p. 64).

At the first step, MONE purchased "1100 computers" for "121 secondary schools" in 1985 (Akkoyunlu, 2002). After that, in 1992, "The General Directorate of Computer Education and Services" was established within MONE and 6500 computers were distributed to schools (Akkoyunlu, 2002; Akcaoğlu, 2007). Information Technology classes were established in primary schools; OECD reports underlined that "the infrastructure for 3.188 IT classes in 2.802 primary schools was completed and IT classes were opened as well as 56.605 computers and other related equipment were distributed to 26.244 village primary schools in rural areas" (OECD, 2005, p. 54).

In Turkey, "Ministry of National Education" have carried out different projects to effectively integrate technology into education. In line with this purpose, first of all, in 1988, "Computer-Assisted Education Project (CAEP)" was run by the ministry (Yılmaz, 2011). In the following years, a new project called "the National Education Development Project (NEDP)" was conducted in 1992. This project was supported by "the World Bank" and it was completed in 1997 (Yılmaz, 2011). In conjunction with the aim of this project, two other projects which are "the 53 Computer Try-out School Project and 182 Computer Laboratory School Project" was carried out to develop software for "computer assisted education (MEB, 1991).

Despite the fact that the different projects were run by MONE, those projects, "contrary to what had been planned, was continued in such a way that it included the dimensions of hardware and teacher training and disregarded the dimension of integrating implementation with the curricula and giving primary importance to the dimension of software" (Yılmaz, 2011, p. 39).

In 2000, a new project, which is "Catching the Era in Education 2000", was carried out "to generalize the use of information technologies, primarily in primary education towards integrating it into the system" (MEB; 2002, MEB; 2004 as cited in Yılmaz, 2011). "For this aim the course of 'Computer Sciences' began to be taught as an elective starting from the fourth grade in primary education in 1998. After this development, Department of Computer Education and Instructional Technology began to be opened within the education faculties" (Özdemir, 2013, p. 4). Another compulsory course offered by "Council of Higher Education" is "Instructional Technologies and Material Development" course. The aim of the course is explained by "the Council of Higher Education of the Republic of Turkey" as follows

> *The goal of this course is to help teacher candidates gain the basic skills in computer use and know more about information technologies, Instructional Technologies and Material Development, one of the courses in the teacher training program, is like the extension of the basic computer course and includes the application of developing technologies into the teaching environment. With the help of these courses that promote the use of developing information technologies in schools and the development of various instructional materials, teacher candidates are intended to learn about such technologies as computers, the Internet, multi-media, television and video sets, and projectors and to use them in teaching. In this way, future teachers are expected to know more about technology and to do their job effectives (Kılıçkaya, 2012, p. 25)*

After 2000, within the "Basic Education Project", MoNE supported to schools in terms of "service", "maintanence" and the "Internet connection". Finally, Fatih Project standing for "'Movement of Enhancing Opportunities and Improving Technology" was carried out by ministry. It is "started on February 6th, 2012 in 52 schools in 17 provinces across Turkey with a total of 12,800 tablet Personal Computers (PCs) issued to ninth grade students as part of a pilot program" (Özdemir, 2013, p. 5).

All these projects proved that the importance of ICT and CALL is understood in Turkey. Therefore, policy makers tried to find new ways to utilize technology in education so that the quality of education can be increased.

Moreover, there were studies about integrating technology into language classroom. Gülbahar (2007) conducted a study to investigate integration of technological materials into school curriculum. That study aimed to find out "how a school could frame a prescriptive technology plan that takes into consideration all key players in a school and technology for successful technology integration in the

school" (p. 945). It was uncovered that participants should attend in service training in order to use technology effectively and also they need to reach easily technological equipment in schools (Gülbahar, 2007).

In another article written by Şimşek (2008) to analyze viewpoints of students studying at Middle East Technical University about utilizing technological equipment in their reading lesson, the findings showed that learners have positive opinions about using digital tools in their schooling because they feel more flexible in those courses. Furthermore, it was found that ICT integrated classes improved students reading skills (Şimşek, 2008). The reason could be the feedback given by instructor because most of students stated that their motivation increased with the help of feedback provided via ICT tools.

Akcaoğlu (2007) carried out a research to identify "technology integration approaches and practices of both pre-service and in-service English language teachers". The outcomes of it showed that teacher use technological materials as "teacher tools" instead of "student tools" that could foster not only "learner autonomy" but also "higher order thinking skills" (p. 116).

In Turkey, there are different studies investigating integration of technology into education system. From the years 2000s, there is a significant progress in this process in terms of increasing amount of investments in using technology in education (Akkoyunlu, 2002). However, it is obvious that those investments and studies are not met the needs and expectations of teachers and learners as well as policymakers (Akbaba-Altun, 2006; Özdemir & Kılıç, 2007). Moreover, Özdemir mentioned about "chronic" issues affecting the effectiveness of using technology for educational purposes. Özdemir (2010) identified these "chronic" issues as "the lack of adequate educational software, the low quality of in-service training for staff, lack of financial, technical and pedagogical support to schools, insufficient funding for staff training, attitudes of policymakers toward ICT" (as cited in Karakaya, 2010).

2.5. Attitudes of teachers towards technology

Beliefs of teachers about incorporating technological tools into learning and teaching are critical; that is why, identifying their views and attitudes is important (Drenoyianni & Selwood, 1998). Both intrinsic and extrinsic factors affect teachers'

attitudes towards technology integration. The external factors can be classified as limited access to computer, insufficient syllabus design and technical support. Internal factors are teachers' perceptions and beliefs about computer technology (Güneş, 2015).

In their study, Zhao and Frank (2003) investigate the technology use in schools and they conclude that teachers have a significant role in technology integration in classrooms. They noted that "teachers use computers in ways that address their most direct needs, bring them maximal benefits, do not demand excessive time to learn, and do not require them to reorganize their current teaching practices" (p. 821).

2.5.1. Definition of Teachers' Attitude

An attitude is "a relatively enduring organization of beliefs, feelings, and behavioural tendencies towards socially significant objects, groups, events or symbols" (Hogg&Vaughan, 2005; as cited Gilakjani and Leong, 2012, p,631). There are two aspects of attitudes which are "readiness for response" and "motivating" or "driving power" of attitudes and they can be both positive and negative (Gilakjani and Leong, 2012). Teachers' attitudes are important because it also influences learning styles of students. Their beliefs and expectations affect technology integration in the classroom because teachers using traditional methods reject using technology in their classes.

2.6. Advantages of Computer Assisted Language Learning

When previous research about technology integration in language education, it is seen that researchers tried to explain importance of using technological equipment in education process. To illustrate, Wang (2007) suggested that utilizing technology in classroom improves "productivity and activity" of teachers and also increase the "basic skills and knowledge" of learners.

According to Akbulut (2008) technology integrated language classes not only catch students' attention but also increases their motivation. Moreover, another advantage is the opportunity to reach a plenty of authentic materials and to interact with native speakers in order to improve learners' proficiency (Iacob, 2009). AbuSeileek (2007) verify this argument by stating computer based

language activities improves oral ability of the learners by providing them a setting to communicate via "e-mail" or "chat" with people from all around the world.

According to Han (2008), five main advantages of integrating computers into language education listed as:

- "CALL programs provide learners more independence from classrooms"

- "Learners can study anytime and anywhere"

- "CALL programs develop the process of second language learning"

- "Computers encourage students and teachers to interact with each other"

- "Computers can provide rich resources for the classrooms".

Tunçok (2010) originally found that "the use of CALL...in and out of the classroom provides new opportunities to promote language development by improving reading, writing, listening, and speaking skills together with grammar, vocabulary knowledge and pronunciation. They include infinite source…that students can build on their language learning focusing on each skill". This idea accepted by Jones and Fortescue (1987). Furthermore, they underlined that "incidental reading, reading comprehension and text manipulation in which learners read the text with the purpose of completing the activities successfully, answer traditional comprehension questions and study a text in terms of content and structure" are the strategies used in computer based language learning. Furthermore, when the studies about how computer enhanced activities support language teaching process, the most of the studies illustrate that "many features of the computer are considered to enhance vocabulary development and reading comprehension: CALL is one of those features that refer to using computer-based systems in various types of contents, such as text, audio, video, graphics, animation and interactivity. The key concepts of CALL approaches are thus 'computer-based' and 'interactive" (Gorjian et al, 2011, p. 385)

In 2010, Balkul administered a study to identify "the changes in the attitudes of the subjects enrolled in Intensive English Programme at Sakarya University towards computer assisted language learning in a five-month CALL exposure process". In the study, he noted that the opportunity to transmit the target culture with the help of authentic materials used in computer based activities. Moreover, they "get more

input about the everyday usage of the target language" (Balkul, 2010). In parallel with this statement, Levy (1997) cited that "collections of materials or archives can be stored conveniently at local sites for worldwide access and these materials can be of "a textual, audio, and visual kind, or a subset therein"

When it is considered in terms of teaching grammar, computer assisted language activities helps teachers to make the lesson more interesting compared to traditional teaching methods. Especially, feedback which is provided by computer such as - "Well done", "Excellent", and "Oops! Sorry. Try again"- increase motivation of the students. In addition, since feedback given by teacher for each student takes too much class time, it is makes teachers' job easier in the class (Tunçok, 2010). Another study undertaken by Stroia (2012) emphasizes the importance of computerized activities in terms of influencing "the rhythm of the lesson progress". He puts forwards that "the usage of computer-based programs allows every learner to study in his own rhythm, according to his personal characteristics… Some will do it quicker, and others will need more time, but no one will be dependent upon the learning rhythm of his neighbors. (Stroia, 2012, p. 40)

Additionally, with regards to testing and assessment, computer technology offers numerous advantages. In the words of Tunçok (2010), using computers in the process of testing language skills provides different benefits related to "administration and human considerations". Tunçok's supposition is that "among test administration advantages, using computers increases test security and using computers instead of humans may reduce the marking cost while maintaining the reliability" (2010, p. 33). Moreover, as Tunçok (2010) indicated, using computers for the purpose of language assessment give more reliable testing results because of the fact that "computers computers are more accurate than humans in scoring and reporting the results".

When it considered in the human perspective, it takes less time to administer computer based language tests and for that reason it is more effective in terms of time (Madsen, 1991). Moreover, in these kinds of tests, the number of the questions that students need to answers is specified according to their proficiency (Fulcher, 2001, as cited in Tunçok, 2010). As Tunçok (2010) puts it perceptively, "in computer adaptive language tests, students should experience less frustration

than on paper-and-pencil tests because they will be working on test items that are appropriate for their own ability levels".

Sims (2008) summaries the advantages of computer assisted assessment in his article. He states that "there are benefits in using educational computing systems. These include reduced learning time, improved learning effectiveness and efficiency under the right conditions, and less expensive delivery of content, particularly in distance education settings" (as cited in Williams, 2013, p. 118).

In another article written by Warschauer and Healey in 1998, the advantages of using computers in language classes are listed as following:

- "multimodal practice with feedback

- "individualization in a large class"

- "pair and small group work on projects, either collaboratively or competitively"

- "the fun factor"

- "variety in the resources available and learning styles used"

- "exploratory learning with large amounts of language data"

- "real-life skill-building in computer use" (p. 59).

In literature reviewed, there are a lot of studies investigating advantages of utilizing computers in language education. In one of those studies, Marzban (2011, p. 4) listed those advantages as follows:

1. "It provides opportunities to access information in different and helpful forms…"

1. 2. "It creates opportunities for learners to refine, define, develop, and store their language output…"

2. "It creates a focus on English and how it is used, for example through text

3. tools or writing frames"

4. "It increases opportunities to use first language to support curriculum and

5. English learning, for example through the Internet translation tools".

6. "It provides opportunities for learners to become autonomous learners and to practice their skills in particular areas of English…"

7. "It increases opportunities and motivation to communicate in English…"

8. "It stimulates working, thinking and talking collaboratively which supports

9. "EFL learners to process and embed language and curriculum learning".

It is evident that numerous researches about adapting computer technologies in language education have been undertaken and they have suggested different advantages of this adaptation. However, there is still strong criticism of computer based language teaching by exemplifying its disadvantages.

2.7. Disadvantages of Computer Assisted Language Learning

Adaptation of computer technology into educational settings provides a great number of advantages to both teachers and students, there is still criticism related its drawbacks related to "financial barriers, availability of computer hardware and software, technical and theoretical knowledge, and acceptance of the technology" (Lee, 2000).

One of the drawbacks is that using technological tools in language classrooms creates problems related to cost of education. Gips et al. (2004) demonstrated that computer technologies "will increase educational costs and harm the equity of education". They supported their ideas by stating "when computers become a compulsory tool for students to follow the lessons, do homework, submit assignments …etc., low-income students usually cannot afford a computer and low budget schools may not be able to afford computer labs which will cause unfair educational conditions for those poor schools and students" (Gips et al. ,2004).

In addition, another shortcoming is related to lack of knowledge related to utilizing technological tools. If teachers and learners do not have enough competent in using computer applications, the objective of their class activities will not be fulfilled. That is why; "they should be offered training courses in the uses of computer technology" (Tunçok, 2010).

Güneş (2015) provides one of the strong criticism of computer based learning in her paper. Her supposition is that computer applications that "assist language

teaching are improper. Most language teaching programs are engaged with listening, writing and reading skills at present. … Any speaking program is to comprehend users' input and assess appropriateness of them. In this sense, it should be able to identify learners' problems with pronunciation" (p. 24.)

What is more, according to Balkul (2010), computer adopted language classes have drawbacks in application related to students' computer phobia. He affirms that "some students are never comfortable with using computers. This phobia might be stemmed from different reasons such as not having enough computer literacy, having some health problems or disliking to spend time in front of computer. Whatever instructors do, these students won't make use of CALL activities effectively" (p. 10).

Gündüz (2005) listed some other shortcomings of adopting computers in language teaching process as follows:

- "Learners who do not have prior experience in using the keyboard may waste a lot of valuable time identifying in order to print their responses"

- "Working with computers normally means that the learners work in isolation. This obviously does not help in developing normal communication between the learners, which is a crucial aim in any language lesson".

- "Computers are not suitable to all the activities that go on in the classroom"

- "Computers cannot cope with the unexpected happenings and ambiguity"

- "Computers cannot conduct open ended dialogues and cannot give feedback to open ended questions" (p. 208).

Henning (1991) criticizes computer adopted learning because he discusses that there is a difference in test results between traditional tests and computerized test. Kirsch et al. (1997) verifies this idea by stating that if some students do not familiar with using computers or typewriter keyboards, this situation may affect their test scores in "computer-assisted" or "computer-adaptive tests".

2.8. Studies Investigating Teachers' Perception on Technology Integration

Karakaya (2010) stated "without exploring the attitudes of teachers toward technology, it is almost impossible to realize desirable implementation of

technology in education" (p. 37). Therefore, there are a lot of study exploring teachers' views and perception about using technology in language classroom.

A research is done by Albirini (2004) to identify 326 Syrian EFL teachers' understanding of communication technologies. His findings illustrate that in service English teachers had "positive attitudes toward ICT" use in language teaching; but yet, they do not have enough competence on using technology and they do not use technology effectively. Therefore, they should get in service training about utilizing ICT in schooling process.

Hadley and Sheingold (1993) carried out an investigation to reveal beliefs of teachers on adopting of technological equipment in educational settings. There were 608 participants in the study. The conclusion one might draw from article is that lecturers' motivation to use computers in their class impact their applications in classroom. In addition to this, if teachers have a chance to easily access technological equipment, they can use more this equipment more effectively. One participant underline that "Language arts classes through writing labs generate some fantastic copy for DTP [the class publication]. Students also have open access to the computer room beyond writing labs to utilize software tools to organize, edit, proof, and illustrate their writing pieces for publication" (Hadley and Sheingold, 1993, p. 271).

Tondeur, Hermans, Braak and Valcke (2008) deals with primary school teachers to explore their ideas about using computers in the teaching process. According to their findings showed that there is a meaningful relationship between teachers' perceptions and their practice in their lessons. The supposition of Tondeur and his friends is that "teachers use computers in ways that are consistent with their personal beliefs, a broader spectrum of educational beliefs might result in a more diverse use of ICT" (2008, p. 2550). Simply stated, teachers using traditional teaching methods do not favor to use computers in their classes. Judson (2006) verifies this result by stating "that teachers use technology according to their established way of teaching and learning and they get difficulty in adapting to new technological tools and making the instruction more student-centered" (as cited in Karakaya, 2010).

In 2010, Ertmer and Ottenbreit-Leftwich conducted a study to understand "technology integration through the lens of the teacher as an agent of change: What are the necessary characteristics, or qualities, that enable teachers to leverage technology resources as meaningful pedagogical tools" (p. 255). The outcomes illustrate that participants do not want to implement computers in their practices. Moreover, they argued that teachers need to believe themselves to use technology in their classes and they must have necessary skills for integrating technological devices in educational settings.

Wozney et al. administrated an investigation to reveal "the attitudes of teachers towards computer technology and their computer technology practices" (2006). There were 764 participants working at "both private and public school in Quebec". They found that teachers use computers for "informative purposes" and "expressive purposes" instead of "instructional" or "communicative purposes". Moreover, participants using computers in daily life have more positive standpoint about integrating them into classes. Their findings are verified by Al-Zaidiyeen et al (2010). In their studies, they searched the conception of 650 Jordanian lecturer about the implementation of ICT into instruction. They found that most of the teachers do not use computers in teaching process. Teachers only use applications like "Internet", "CD-ROM", "Word Processing" and they are not using other more complicated computer applications (Zaidiyeen, Mei and Fook, 2010).

The outcome of an investigation done by Tuzcuoğlu (2000) for the purpose of examining "the instructors' attitudes towards CALL" illustrate that instructors thinks that using "CALL" is beneficial and they want to use "the computer lab" for their courses. However, they also underlined that they need in-service training in order to use computers effectively.

2.9. Factors having impact on utilizing of computer technologies

The findings of the study conducted by Braul (2006) to identify "perceptions of ESL instructors towards CALL" mark that although participants mention that CALL is useful, teachers have several problems in process of implementing computer based activities in their syllabus. Those problems are concerns related to time, not knowing how to use both computer software and CALL applications and also concerns related to usefulness of CALL. Franklin (2005) conducted a study for the

purpose of labeling the determining facts of teachers' computer usage in school. Franklin listed those factors are (as cited in Güneş, 2015) "too much curriculum to cover, lack of time in daily schedule, and high stakes testing." According to Lee (2000), the barriers related integrating computers in classroom can be classified as "financial issues", "the problems availability of computer hardware and software", "lack of technical and theoretical knowledge", and "issues related to acceptance of the technology".

Mumtaz (2000) wrote an article to identify the factors affecting integration of technology by reviewing the related literature and he underlined that following factors are important in the process of integration technology. These factors are

- "lack of teaching experience with ICT";

- "lack of on-site support for teachers using technology";

- "lack of help supervising children when using computers";

- "lack of ICT specialist teachers to teach students computer skills";

- "lack of computer availability";

- "lack of time required to successfully integrate technology into the curriculum";

- "lack of financial support". (p.320).

2.10. Technology Integration into education and Teacher Training

Research showed that teacher training and professional development discipline have a significance function in order to increase usage rate of technological devices in training. Byous (2007) investigated "high school language arts experiences of teachers participating a technology professional development course". The findings showed that when teachers get training about technology integration, their attitudes towards technology integration changes in positive way. Moreover, they benefit form technological tools more effectively. Wilson et al. states the importance of getting training about technology as "Extended integration of technology into professional education, beyond the required introductory technology classes or as a replacement for standalone classes, may encourage

teachers to design learning experiences that incorporate a variety of technological components" (Wilson et al., 2003, p. 262).

Russell and his friends (2003) searched to "what extent technology was used by teachers in their educational practices". As reported in findings of study, although novice ones have more positive opinions about technology, all of them have problems with integration of technology. For this reason, preservice and inservice teacher training programs have a significant role to benefit from computers completely. Teacher training departments must have courses related technology integration by this way, teachers will have opportunities to practice technology assisted learning.

Foreign language teachers are supposed to have computer skills so that they can perform their profession according to the necessities of time Chapelle & Hegelheimer (2004). In addition, they must have ability to "choose, use, and in some cases, refuse technology for their students" (Chapelle, 2006, p. ix). For this reason, teachers need to attend training courses about implementing computers into teaching programs training gain importance.

2.11. Studies investigating students' perceptions on technology integration

After analyzing the views of teachers about computers technology and its use in language teaching, researchers conduct different studies to reveal the views of students about benefiting computers in their language classrooms. When all these studies reviewed, it can be inferred that majority of learners think that computers are beneficial in language learning process. Since learners are important element of teaching and learning process, identifying their opinions gain importance.

According to Jalali & Dousti (2014) "The attitude of EFL learners towards CALL is one of the important elements that can be influential in implementing a CALL course". In the literature, there are various studies about viewpoints of students related technology integration and outcomes of the most them display that they have positive views about utilizing technology (Jalali & Dousti, 2014). Stepp-Greany underlined that utilizing technology in class has many advantages for learners by saying "include[d] increased motivation, improvement of self-concept and mastery of basic skills, more student-centered learning and engagement in

the learning process, and more active processing, resulting in higher-order thinking skills and better recall" (2002, p. 165).

The findings of a study done by Eren (2012) about "investigate student's attitudes towards using social networking sites, especially Facebook in foreign language classes". They found that students have positive beliefs about "the use of Facebook activity in their language learning classes" because they believe that "chatting with foreign people" helps them to improve their language skills.

In another study conducted by Awad and Alkaraki (2013) to identify "the attitudes of students towards using computers in learning language" have similar findings with the Eren (2012). They stated that students have positive views about the using computers in their classes. Moreover, they found that factors such as "age" and "gender" affect participants' attitudes. Male participants have more positive ideas about utilizing computers. Similarly, the ones who are older also have more positive opinions about using computers in their classroom.

It is known that technology enhanced language learning improves language skills of the learners. In line with this, Kasapoğlu conducted a study in 2010 to reveal "what educational technology tools international students at Eastern Michigan University use to improve their language and communication skills". His outcomes showed that "ESL students believe that using technology, especially using educational technology tools helps them to improve their both language and communication skills. They use the technology tools both outside and inside of the classroom to practice English and learn more about writing, reading, speaking and listening skills" (Kasapoğlu, 2010, p. 237). Similarly, Yang and Chen (2006, p. 876) states that "the TELL project enabled the students to experience new technologies, feel the pleasure of learning and increase their learning opportunities. The TELL project improved student knowledge of computers and other fields, developed their English abilities, expanded their interests, and broadened learning range and possibilities".

Moreover, according to Ali (2010), "technology can be of a great benefit to students in the process of mastering their second language. Since technology offers them more opportunities and easier ways to learn, students feel comfortable with the use of technology".

2.12. Conclusion

"Computer assisted language learning" facilitates educational environment. Previous studies showed that technology implementation into training programme affect language learning in positive way. However, teachers have still negative thoughts concerning utilization of computers as a part of their classes and these attitudes affect the classroom applications. Therefore, their attitudes and perceptions have a vital role in using computer technology.

3. METHODOLOGY

3.1. Introduction

The central aspect of the study is to explore viewpoints of future English Language teachers in relation to using computer technologies in foreign language teaching. Quantitative method is employed with the purpose of finding answers to research questions. In this section, participants, and setting of the study as well as data collection procedure are scrutinized. Moreover, statistical techniques used to analyze data are mentioned.

3.2. Research Design of the Study

Identifying ideas of prospective ELT teachers' perceptions concerning using technological devices within language teaching is main objective of this thesis. Correspondingly, background information about the participants is evaluated to determine whether they influence students' opinions. Quantitative research method is utilized to interpret the findings. Sukamolson (2007) defines quantitative research as "numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect" (p. 4). Moreover, Fraenkel, Wallen and Hyun (2012) assert that data in quantitative studies is "obtained when the variable being studied is measured along scale that indicates how much of the variable is present. Quantitative data are reported in terms of scores" (p. 188).

Quantitative research design has an advantage because these types of studies provide results that can be generalized to large number of groups. That is why; quantitative research method is adjusted in the current study. Another reason of choosing quantitative research design is that it is practical because researchers are able to reach a lot of participants in a little while (Dörnyei, 2007). Both "descriptive" and "inferential" statistics are chosen to describe participants' responses.

3.3. Setting and Participants

The current study conducted at the English Language Teaching Program, Faculty of Education, Hacettepe University, Ankara, Turkey in 2016-2017 academic year. The department was founded at in 1985 and it has improved its curriculum in order

to follow developments in the both in education and in language teaching. The program attempts to train ideally prospective English language teachers and in line with this purpose, it offers both must and elective courses. Moreover, the department gives students to a chance to enroll minor programs. There are 8 lecturers and 17 Research Assistants, who conduct studies about language education, teacher training, linguistics and literature, language skills, material evaluation and adaptation, pedagogy.

The sample of this study consists of (N=174) candidate English language teachers who study at the department of English Language Teaching of Hacettepe University in Ankara. The participants are third grade students and the fourth grade students based on specific purposes. Firstly, 3th grade students were chosen because they attended methodology courses and they had background knowledge about approaches to teaching English language. Moreover, they do micro teaching activities and they have an experience about teaching English. Secondly, the reason of choosing fourth grade students is that they attended all courses related methodology and teaching principles and also they practiced teaching their teaching strategies both during micro teaching activities and during their school experience courses. Table 4, Table 5, and Table 6 illustrates descriptive statistics about participants in terms of gender, grade and GPA.

Table 3.1: Participants of the study distributed to their gender

Gender	Frequency	Percent	Cumulative Percent
Female	131	75.3	75.3
Male	43	24.7	100.0
Total	174	100.0	

Table 3.1 points out that 75. 3% (N=131) of the total participants were female and 24. 7 percent (N=43) of them were male. This is because there are more female students than males in the department.

Table 3.2: Grade of the students participated to the study

Grade	Frequency	Percent	Cumulative Percent
3rd grade	45	25.9	25.9
4th grade	129	74.1	100.0
Total	174	100.0	

Table 3.2 marks that 25.9% (n=45) of participants are junior students while 74.1% (n=129) of them are senior students.

Table 3.3: GPA of the participants

	N	Mean	Std.Deviation	Std. Error
high	21	3.076	.14324	.03126
mid	100	3.126	.21671	.02167
low	48	3.156	.25873	.03734
Total	169	3.128	.22226	.01710

Table 3.3 indicates the grade point average of the students. As it is seen in table, 20.1 % (n=35) of participants have 3.50 and above, 51.7 % (n=90) of the participants have 3.00 - 2.49, and 28. 2% (n=49) have 2.99 and less GPA. It can be inferred from the table that 71.8 % of the participants are more successful students.

3.4. Data Collection Instrument

The study is based on a single questionnaire that is composed of four sections. Brown (2001, p. 6) explains questionnaire as "written instruments that present respondents with a series of questions or statements to which they are to react either by writing their answers or selecting from the given answers". Advantages of using questionnaire are suggested by Brown & Dowling (1998). They assert that "once the information required by the researcher has been identified, it appears to be relatively easy to construct a list of questions that get straight to the heart of the matter, to be delivered directly to chosen respondents to complete and return in their own time" (Brown & Dowling, 1998, p. 57)

In the first part of questionnaire, participants are asked to indicate their gender, grade, and GPA.

The second section of the questionnaire is about computer use and literacy. This section aims to check out "for what purposes English language teachers use computers". This part of questionnaire was adapted by Karakaya (2010) from a study titled "teachers' attitudes towards computer technology use in vocabulary instruction" done by Arkın in 2003. Students were asked to choose the items to indicate for "what purposes they use computers" and also they are asked fill out "how many hours they use internet in a day".

The third part is created by Albirini (2004) and it is about "the perceptions of pre-service teacher on computers in general". There are 20 items in 5-point Likert-type scale from "strongly disagree" to "strongly agree". Albirini stated that the scale

"consisted of three subscales: (a) Affective (items 1-6), (b) Cognitive (items 7-15), and (c) Behavioral (items 16-20)".

Fourth part of the questionnaire which was created by Albirini (2004) consists of "5-point Likert-type scale" with 18 items from "strongly agree" to "strongly disagree". That part aims to discover views of candidate English language teachers using computers in educational purposes. Albirini (2004) stated that "items 1-5 measured computers' relative advantage, items 6-10 measured computer compatibility, items 11-14 measured computer complexity, and items 15-18 measured computer observability" (p. 62). Moreover, he cited that "to ensure systematicity in the negative /positive direction of all subscales, the negative items of the complexity subscale were reversed, and thus it was the simplicity (non-complexity) of computers that was measured" (p. 62).

3.4.1. Reliability of the questionnaire

As Johnson and Chrstensen (2004) suggest that "Reliability refers to the consistency of a set of test scores and it is calculated by using some type of correlation coefficient". Internal consistency is one type of reliability and Cronbach Alpha Coefficient is used in order to point out if "the items of a test or instrument measure the same attribute or dimension" (Kottner & Streiner, 2010). According to Dörnyei "Cronbach Alpha Coefficient is a figure which differs from 0 to +1" and in order to accept items as reliable, "cronbach alpha coefficient should be over r=.70" (2007). The reliability of the present questionnaire is measured via SPSS.21 Statistical Package. Reliability coefficient of the questionnaire is found above from the accepted level. Table 3.4 presents the results of the reliability analysis.

Table 3.4: Reliability of questionnaires

	Number of Items	*Cronbach Alpha Coefficient*
3rd part	20	.778
4th part	18	.849
Overall	38	.903

3.5. Data Collection procedure

The subjects of the present thesis are candidate ELT teachers. Data is collected in English language teaching department, Hacettepe University. The questionnaires were given to 174 prospective ELT teachers after getting the required permission

from the school authorities. Data were gathered by the researcher in fall term of 2016-2017 academic years. In order to ensure that questionnaire working as intended, a pilot study with 10 participants was conducted. The questionnaires were administered and collected in four weeks. The researcher herself was responsible for the delivery of the questionnaires. Questionnaires distributed to students during courses by getting permission from instructor of the courses before the lesson start. Since it is impossible to reach all students at the same, researcher had to visit students during their different courses in different weeks. Researcher asked students to fill out readily-prepared questionnaire consent form in order to inform them about the aim of the work and also privacy of responses. Researcher aimed to create a stress free environment during the data collection process so that the participants would fill the questionnaires accurately. It took approximately ten minutes to complete the study. All participants involved the study voluntarily. After the students finished, the questionnaires were collected immediately. There were also some participants who completed the questionnaire after the course and returned it in a week.

3.6. Data analysis

The questionnaires used in the research were analyzed with "SPSS 21 (Statistical Package for the Social Sciences)". Levesque (2005) put forward that "SPSS offers a rich set of tools for carrying out those data management tasks" (p. 1).

After all data entered to SPSS, to address research questions, descriptive and inferential statistics are calculated. The attitudes of the participants toward computers both in general and in educational setting is treated as depended variable and gender (male, female), grade (3rd and 4th grade) and GPA (high, mid, and, low) is treated as independent variable of the study.

"Frequencies" and "percentages" were used to analyze data related to background information of participants and visualized by tables. Participants' computer usage levels are analyzed with "descriptive statistics". The reasons why teachers use computers were analyzed with frequency calculations. Correlation statistics was applied to compare participants' "attitude toward ICT and computer technology and their perceptions of using computers in classes". "Analysis of Variance (ANOVA)" and "independent sample t-tests" are used to reveal the effect of the

variables such as gender, grade, and GPA of participants on their attitudes. In the background information part, participants are asked to write their GPA and their responses are categorized as high, mid, low by the researcher.

3.7. Conclusion

This part of study is about the methodology applied in this study. General information about the research design, participants and setting as well as instruments is presented. Data analysis results are going to be mentioned in the next part.

4. RESULTS

4.1. Introduction

In the present thesis, data is collected via a questionnaire. "Descriptive" and "inferential" statistics are done with the purpose of analyzing the responses of participants in "SPSS.21".

The purpose of current research is to identify the opinions of prospective ELT teachers related to utilization of computers in the process of teaching language. Additionally, factors affecting participants' attitudes are examined. In this study following statements specifically are focused:

- The reason of why participants use computers

- Attitudes of participants towards computer technologies in general

- Attitudes towards using computers in educational settings

- The correlation between prospective ELT teachers' opinions on computer technology and their opinions on utilizing computers in language classrooms.

- Factors affecting participants' attitudes

  - Gender

  - GPA

  - Grade

4. 2. Results of Data Analysis in Terms of Research Questions

4.2.1. The purpose of using computers

Participants are asked to identify the reasons why they use computers in the second part of questionnaire. They can choose more than one item. This part of questionnaire gives an idea about the functions of computers for pre-service English language teachers.

Table 4.1: Purpose of using computers

Section 2	What do you use computers for?		Frequency	Percent
1	e-mail and mail listing	No	17	**9.8**
		Yes	**157**	90.2
2	Web folios/e-portfolios	No	137	**78.7**
		Yes	**37**	21.3
3	Games	No	105	**60.3**
		Yes	**69**	39.7
4	Finding materials related to lesson	No	8	**4.7**
		Yes	**166**	95.4
5	Preparing presentation	No	10	**5.7**
		Yes	**164**	94.3
6	Course management software	No	139	**79.9**
		Yes	**35**	20.1
7	Submitting projects/homework	No	35	**20.1**
		Yes	**139**	79.9
8	Video conferencing and net- meeting	No	111	**63.8**
		Yes	**63**	36.2
9	Preparing materials	No	57	**32.8**
		Yes	**117**	67.2
10	Online dictionaries	No	12	**6.9**
		Yes	**162**	93.1
11	Online discussion boards	No	127	**73.0**
		Yes	**47**	27.0
12	Wikis	No	58	**33.3**
		Yes	**116**	66.7
13	Giving feedback to each other(peer feedback)	No	108	**62.1**
		Yes	**66**	37.9
14	Web blogs	No	93	**53.4**
		Yes	**81**	46.6
15	MOO/MUDS	No	169	**97.1**
		Yes	**5**	2.9
16	Chatting	No	30	**17.2**
		Yes	**144**	82.8
17	Shopping online	No	41	**23.6**
		Yes	133	76.4

As Table 4.1 demonstrates, the highest frequency belongs to first, fourth, fifth and tenth statements. In other words, almost all participants (n=157) use computers for "e-mailing", for "finding materials" (n=166), and for "preparing presentation" (n=164), as well as "online dictionaries" (n= 162). One of the main reasons why teachers utilize e-mails could be contact their lecturers via emails.

Table 4.1 also clearly indicates that the lowest frequency belongs to statement 15. Namely, 5 out of 174 participants (2.9 %) use "MOO/MUD". The reason of this low frequency could be due to lack of knowledge of meaning of MOO and MUD.

It is also seen in Table 4.1 that participants (=137) do not use "web folios/e-portfolios" frequently. 69 out of 174 participants (39.7 %) use computers to play "games". Moreover, a striking finding is that only 35 out of 174 participants (20.1%) use "course management software". The reason of this could be that their instructors do not use course management software and also they do not encourage them to utilize that software.139 out of 174 participants (79.9%) uses computers for "submitting homework" and most of the participants (n=116) use" Wikis". Table 8 clearly indicates that participants (n=63) use computers for "video conferencing and net meeting". Only limited number of participants (n=47) use "online discussion boards". Most of the participants (n=117) use computers for "preparing materials". This is because they are able to reach a large amount of material via computers. Participants (n=66) use computers for "giving feedback". 81 out of 174 participants (46.6%) use "web blogs".

Participants (n=144) use computers for "chatting" and similarly participants (n=133) use for "online shopping". It can be inferred almost all respondents utilize them for social purposes.

4.2.2. Attitudes toward Computer Technologies in General

Third and fourth sections of the questionnaire are about the viewpoints of pre-service ELT teachers with regard to technology integration through the "ICT (Information and Communication Technology) Scale and Computer Attributes Scale".

Third part of the questionnaire identifies prospective ELT teachers' perception about information and communication technology.

Table 4.2: Descriptive statistics for ICT Scale

Item no	Statements	N	Minimum	Maximum	Mean	Std. Deviation
1	Computers do not scare me at all	174	1	5	3.97	1.083
2	Computers make me feel uncomfortable	174	1	5	1.95	1.077
3	I am glad there are more computers these days.	174	1	5	4.03	.931
4	I do not like talking with others about computers	174	1	5	2.53	1.090
5	Using computers is enjoyable.	173	1	5	4.06	.815
6	I dislike using computers in teaching.	174	1	5	1.76	.846
7	Computers save time and effort.	174	1	5	4.18	.878
8	Schools would be a better place without computers	174	1	5	1.93	.906
9	Students must use computers in all subject matters.	174	1	5	3.39	1.030
10	Learning about computers is a waste of time	174	1	5	1.74	.880
11	Computers motivate students to study more	173	1	5	3.66	.899
12	Computers are a fast and efficient means of getting information.	174	1	5	4.28	.778
13	I do not think I would ever need a computer in my classroom.	174	1	5	1.68	.919
14	Computers can enhance students learning	174	1	5	4.11	.704
15	Computers do more harm than good.	173	1	5	2.15	.953
16	I would rather do things by hand than with a computer.	174	1	5	2.45	1.040
17	If I had some money I would buy a computer.	174	1	5	3.73	1.010
18	I avoid using computers as much as possible	173	1	5	2.00	.928
19	I would like to learn more about computers.	174	1	5	4.01	.850
20	I have no intention to use computers in the near future.	174	1	5	1.78	.955
	Valid N (listwise)	170				

Table 4.2 explicitly demonstrates that prospective English teachers have positive views on "ICT (Information and Communication technology)" in general. For example, when the item 12 is analyzed, it is seen that participants think that computers are effective ways of getting information in short time. The mean value

of the item is about M=4.28. Similarly, item 7 (the mean value is M=4.18) is examined, it seen that participants agree that computers are time saving. Moreover, the mean value of item 3 is M=4.03, so it displays that participants think it is good to have computers in their lives.

4.2.3. Computer Attributes Scale

Table 4.3: Descriptive statistics for Computer Attributes Scale

Item no	Statements	N	Minimum	Maximum	Mean	Std. Deviation
1	Computers improve education.	174	1	5	4.19	.612
2	Teaching with computers offers real advantages over traditional methods of instruction	174	2	5	4.13	.595
3	Computer technology cannot improve the quality of students' learning.	174	1	5	1.83	.746
4	Using computer technology makes the subject matter more interesting.	174	1	5	4.21	.648
5	Computers are not useful for language learning.	174	1	5	1.69	.916
6	Computers have no place in schools.	174	1	5	1.58	.791
7	Computer use fits well into my curriculum goals	174	1	5	4.09	.696
8	Class time is too limited for computer use	174	1	5	2.70	1.060
9	Computer use suits my students' learning preferences and their level of computer knowledge.	174	2	5	3.95	.720
10	Learning about computers is a waste of time	173	1	5	4.24	.670
11	It is hard for me to learn to use the computer in teaching.	174	1	5	1.93	.887
12	I have no difficulty in understanding the basic functions of computer.	174	1	5	4.07	.968
13	Computers complicate my task in the classroom.	174	1	5	2.43	1.159
14	Everyone can easily learn to operate a computer.	173	1	5	3.80	.842
15	I have never seen computers at school.	174	1	4	1.52	.766
16	Computers have proved to be effective learning tools worldwide.	173	1	5	4.10	.755
17	I have never seen computers being used as an educational tool	173	1	5	1.58	.793
18	I have seen some of my colleagues use computers for teaching English	174	1	5	4.28	.750
	Valid N (listwise)	170				

Table 4.3 shows participants have positive opinions about computer technology in general. Candidate teachers agree that quality of education improves with the computers. Item 16 illustrates computers are beneficial in educational purposes. More specifically, according to the item 7, the mean value of it is M= 4.21,

participants think that computers makes the lesson more interesting. Item 10 confirms computers are useful tool for language activities.

4.2.4. The Relationship between Candidate ELT Teachers' Attitudes towards ICT in General and Computer Use

Table 4.4 clearly marks that there is positive way correlation between candidate ELT teachers' perceptions about ICT in general and their views of computers in language teaching classrooms.

Table 4.4: A correlation Table

		Section3	*Section4*
Attitudes toward ICT in general	Pearson Correlation	1	.405[**]
	Sig. (2-tailed)		.000
	N	174	174
Attitudes towards computers in classrooms.	Pearson Correlation	.405[**]	1
	Sig. (2-tailed)	.000	
	N	174	174

4.2.5. The Factors Affecting the Pre-service ELT teachers' perceptions

4.2.5.1. Gender

This study aims to identify whether gender has an effect on prospective ELT teachers' opinions on technology. Independent sample t-test is used to investigate whether males differ from female respondents in terms of attitude toward ICT in general and their views of computers in classrooms.

Table 4.5: Gender and attitude toward ICT

Gender	N	X	SS	Sd	t	p
female	131	2.9516	.17029	172	-2.147	0.05*
male	43	3.0226	.23528			

*p<0.05

As the Table 4.5 indicates, there is a statistically significant difference between males and females' attitudes towards ICT in general. Male participants have more positive perceptions on computer technology in general.

Table 4.6: Gender and computers in education

Gender	N	X	SS	Sd	t	p
female	131	3.1112	.20477	172	-1.810	0.05*
male	43	3.1809	.25805			

*p>0.05

Table 4.6 clearly demonstrates that there is no significant difference between participants' conceptions on using computers in their educational settings in terms of gender. Both female and male students have similar perceptions about using of computers in classes.

4.2.5.2. GPA

Students are asked to identify their academic average in first chapter of questionnaire because it was one of the concerns of this study. Students' GPAs are categorized as high, mid, and low according to their responses. If the students' GPA are 3.50 and above, it is accepted as high achiever. The ones who have 3.00 and 3.49 GPA, they were categorized as mid achiever and finally the ones having 2.99 and less are accepted as low achievers. In order to see whether GPA affects students' attitudes towards, one-way ANOVA is conducted. Table 4.7 gives descriptive statistic results of GPA of participants.

Table 4.7: Descriptive statistics for GPA

	N	Mean	Std.Deviation	Std. Error
high	21	3.076	.14324	.03126
mid	100	3.126	.21671	.02167
low	48	3.156	.25873	.03734
Total	169	3.128	.22226	.01710

Table 4.8: Anova test result for GPA and attitudes towards ICT general

source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.070	2	.035	.971	.381
Within Groups	6.005	166	.036		
Total	6.075	168			

p>0.05

Table 4.7 and 4.8 indicate that participants' perceptions do not differ depending on their GPA according to ANOVA results.

4.2.5.3. Grade

The purpose of the study was to identify difference between third and fourth graders attitudes, for that reason, independent sample t-test was applied. However, grade is not the determining factor of the study.

Table 4.9: T-test for ICT in general

Grade	N	X	SS	Sd	t	p
3rd grade	45	2.9833	.18464	172	.579	0.05*
4th grade	129	2.9642	.19256			

p>0.05

Table 4.10: Using computers in education

Grade	N	X	SS	Sd	t	p
3rd grade	45	3.1099	.16603	172	-.655	0.05*
4th grade	129	3.1349	.23670			

p>0.05

Table 4.9 and 4.10 display that participants grade does not lead to any significance difference in their attitudes towards both computer technologies in general and also using computers in classroom.

4.3. Conclusion

Data analysis results of the pre-service ELT teachers' views about computers and their use in educational settings in this part. The factors affecting the use of computers have been analyzed. The next part will present the findings in the present study by comparing with the studies in literature.

5. DISCUSSION

5.1. Introduction

This part will present the findings based on data analysis in relation to the literature.

5.2. Summary of the study

The primary aim of this current study was to explore the attitudes of future English teachers toward computers. A questionnaire consisting of four main sections was used to examine the attitudes of prospective English language teachers. Statistical analyses are conducted in order to analyze the data. In addition, participants' purpose for using computer and also whether their gender, grade and GPA affect their attitudes was investigated through the study.

5.3. Discussion of the results

5.3.1. Discussion for research question 1

In this thesis, the first research question is related to the purposes teacher candidates use computers. The results of statistical analysis demonstrated prospective teachers utilized computers for mostly "sending e-mail" (90.2 %), "finding materials" (95.5 %), and for "preparing presentation" (94.3%), as well as "online dictionaries" (93.1 %). However, most of them do not use "course management software" (97.1%), and web folios/e-portfolios (78. 7%). This result shows that they use computers in limited way and they do not use more complicated software. A similar result was found by Zhao and Frank (2003). They found out that teachers mostly use computers in order to communicate with their families and to prepare materials for their classes (Zhao and Frank, 2003). They assert that teacher use computers for the activities that do not require too much effort and time. In other words, computers are used mostly for simple activities. Another reason of why candidate teachers do not use for more complex applications may be lack of required software in school and not knowing their convenience, and how to take advantage of them. Moreover, the findings of a recent study undertaken by Karakaya (2010) supported what is found in the present research. He reported that "the quantitative analysis of the respondents' usage levels indicated that they use computers mostly for e-mailing and finding materials for their classes which are lower-level applications for computer use. The

interview data also verified that teachers are not able to use computers for high level tasks" (Karakaya, 2010, p. 108).

Another point that was ascertained in current research is that future teachers use computers for social purposes in general. Participants indicate that they use computers for chatting (82.2 %) and shopping online (76.4 %). This is in agreement with the findings of another investigation administered by Akpınar (2003). He stated that computers are not used by most of the primary and secondary teachers' computers for educational function (Akpınar, 2003, as cited in Gilakjani and Leong, 2012, p. 633). Furthermore, when the data is analyzed, it is revealed that only limited number of participants (20.1 %) use "course management software". This provides an indication of candidate teachers do not use computer for teaching and learning purposes. However, given this circumstances, it can be argued that the reason of this result is because of the fact that required software programs is not provided by their schools. The data confirms the views of Karakaya (2010) about the factors affecting teachers' use of technological equipment. He stated that "while some schools have unlimited opportunities to provide computer technology for the teachers and the students, some other schools lack in technological tools. Therefore, teachers cannot use computer technologies due to limited facilities in their school" (p. 109).

5.3.2. Discussion for research question 2

The second research question addressed in this paper is "What are the levels of future ELT teachers' overall attitudes related using computer technologies in foreign language education?". Third section of the questionnaire was about pre-service ELT "teachers' attitudes towards computers in general" and fourth section of it was about attitudes towards using computers for educational purposes. When data is analyzed, it is noticed that future ELT teachers have positive viewpoints related computer technology. Almost all of the participants use computers for "finding material" and "preparing presentation" and this indicates that there is a consistency between their practices and believes. Moreover, the findings clearly indicate that candidate teachers believe that computers are fast and time saving tools to access information. They also accept that computers are favorable not only for language teaching but also for the other educational fields. This result matches with the findings of previous study investigating "Turkish EFL teachers'

attitudes towards computer use" in classes. The study conducted by Çapan (2012) and he found that English teachers, in Turkey, have significantly positive attitudes on computers. Moreover, in other article, it was affirmed not only teachers but also students have positive attitudes towards computer usage in language learning and they want to integrate them into their classroom activities (Razak & Eswaran, 2010). In her paper Işık (2009) concluded that EFL teachers "consider integrating technology is useful in terms of producing, organizing and presenting more creative and interesting work for their teaching and they have intentions to use ICT tools in their future teaching" (p. 58). It shows that since teacher believe that computer based activities are effective in language teaching, they have positive ideas about implementation of computers in their classes.

In the current study, participants assert that "they can easily operate computer applications" and also "they are eager to learn more computers". It could be because of the fact that they have ability to operate only basic functions of computers like sending e-mail, preparing presentation, and using online dictionaries. Moreover, this could be because of the fact that they feel incompetent in using more complicated computer programs; therefore, they want to learn more about them. This is in line with Erdemir, Bakırcı & Eyduran' (2009) finding that although pre-service teacher can perform simple and basic tasks with computer, they feel inadequate for using complex computer technologies (as cited in Gilakjani and Leong, 2012, p. 633,634).

5.3.3. Discussion for research question 3

This research is design to explore whether factors like gender, GPA, and grade have an effect on future ELT teachers' attitudes towards computer technologies in foreign language teaching and their achievement (GPA)". In order to analyze results "t-test and One-Way Anova" statistics was used.

5.3.3.1. Gender

Determining the effects of gender on perceptions of candidate English teachers is one of the purposes of the work. Independent sample T-test statistic shows that males have more positive perceptions on computer in general; however, there is not any significance difference between participants' attitudes on using computer technologies in language education in matter of gender. Similar results were

yielded by Sarıçoban (2013). He conducted a study 95 pre-service ELT teachers to identify "the attitudes of pre-service Turkish teachers towards computer use". In that study, he asserted that there is no significant relation between candidate teachers' gender and their opinions about computer technology.

In line that study, Ateş, Altunay, Altun (2006) run a study to "discern the effects of computer assisted English instruction on English language preparatory students' attitudes towards computers". There were 20 females and 10 male participants in the study. They found that gender is not one of the factors affecting teachers' attitudes and perception. In present the study, there were 131 female participants and 43 male participants. Because of the fact that the number of the male and female participants is not balanced, t-test result does not show any statistical difference. Regardless of the gender difference, candidate teachers agree that "computers save time and effort", and "computers are a fast and efficient means of getting information". Moreover, all most all of them believe that "computer use is appropriate for many language learning activities".

Studies in literature about views of computers focus on "gender issue". Those studies find "different results. For example, conclusion of present study contradicts with the outcome of the previous paper written by Balkul (2010). He found that "the attitudes of female learners towards CALL are higher than the attitudes of male learners and the attitude difference towards CALL between research groups is meaningful statistically" (Balkul, 2010). In addition, when a previous study run by Warschauer (1996) is reviewed, it is found that the results are contradict with the present study. According to Warschauer, there is a difference between views of females and males about using computerized activities in ELF classes. Moreover, in their study, Fujieda and Matsuura (1999) found that "female students reacted a little more positively to CALL than their male counterparts in the questionnaire they applied to the participants".

In the present study, it is found that both female and male teacher candidates have positive opinion about technology adaptation in language classroom. This could be explained that today computers are used in a great extend in language learning and for that reason the negative attitudes towards them have changed. The reason of this according to Ray et al. (1999) is that "females may have been socialised differently in today's computer generation to be more comfortable with

computers and this may have resulted in lessening the barriers perceived by females, in the lack of training opportunities for them".

5.3.3.2. GPA

In the current study, researcher aims to identify whether respondents' ideas differ with regard to their GPA. Researcher, in order to identify the relation between students' academic achievement and their opinions, grouped the participants in three categories by considering their GPA as high (N=21), mid (N=100), and low (N=48). ANOVA test results clearly indicate that prospective ELT teachers' opinions do not differ according to their academic average. Because of the fact that there is not any balance in the number of participants considering their GPA, there is no significant change according to participants' academic achievements. In other words, both successful and less successful participants agree that using computers increases quality of teaching and learning. This could be explained that "Ministry of National Education" make radical changes in the language teaching policy and supports "technology enhanced language learning" in recent years, for that reason, all students realized the importance of computer based language learning and impact their views in a positive way. Moreover, since most of the participants use computers actively for different purposes in their courses, especially during their micro teachings, they may not have any fear about how to adapt computers in to curriculum. They also experienced the effectiveness of computers in their own teaching. Most of them (M=3, 97) agree that "Computers do not scare me at all" and also they do not believe (M=1, 93) that "learning to use the computer in teaching is not hard" for them. It is obvious that regardless from their academic success, all participants feel confident about implementing technology successfully into educational settings. In addition, the participants of the study can be described as digital natives which is defined by as "native speakers' of the digital language of computers, video games and the Internet" (Prensky, 2001a, p. 1). This is because candidate teachers do not scare from computers and believe the benefit of them in education even if they have lower academic achievement in their schools.

5.3.3.3. Grade

Independent sample t-test was used to see whether grade is a determining factor in participants' opinions about computers. It is found out that there is not any

significance difference among third and fourth graders' attitudes. The reason is of this could be that there are the number of senior students in study is higher than junior students. Both third and fourth grade do micro teaching activities in their courses and that is why, they have chance to experience the real teaching context. During their micro teaching activities, most of the time, they utilize computer based activities in almost all stages of lesson to fulfill their objective. This could be reason they all agree that "using computer technology makes the subject matter more interesting" (M=4.21), "teaching with computers offers real advantages over traditional methods of instruction" (M=4.13). On the other hand, almost all of the participants disagreed that "Class time is too limited for computer use" (M=2.70). When the descriptive statistics are examined closely, it can be concluded that since they all have positive ideas; they are willing to utilize computers in their future classes.

The age and grade levels of participants of the current study are in close range and they almost attend the same courses; therefore, their experiences with computers are similar to each other. That is why; it is not interesting that their views did not differ according to grade levels. In literature there are studies showing that there is a relationship between participants' years of experience with computer and their conceptions. However, in this study, since the age and grade levels, it is reasonable not have any difference among their opinions. As stated above, since the participants can be called as "digital natives", owing to their age, they can effectively use technology and they can adapt them into in their real classroom. Moreover, when the descriptive results are scrutinized, it can be inferred that they can understand "the basic functions of computer" (M=4.07). This statement verifies the supposition that without considering grade levels of them, prospective teachers can operate computers easily in class.

5. 4. Discussion for research question 4

The fourth research question is whether there is "any correlation between the participants' attitudes towards ICT and use of computers/ ICT in language classroom". In order to find out whether there is a correlation "Cronbach Alfa analysis" was used. This study revealed that there is a positive correlation between future ELT teachers' perceptions about ınformation and communication technologies in general and their perception on computers in language teaching

classrooms. To clarify, if future teachers have positive opinions on computers in general, they believe the advantages of them in educational settings and they want to benefit them in their future classroom. This result matches with the other studies in literature. To illustrate, Tondeur et al. (2008) mark mentioned teacher beliefs and their frequency of using technological devices in classroom have a correlation. Teachers having positive beliefs use computers in language teaching process more frequent. The outcomes of another study suggest that teachers utilize computer technologies because it suits their existing beliefs and conceptions (Higgings & Moseley, 2001, as cited in Tondeur et al., 2008, p. 2544).

Moreover, Tondeur et al. states that "results of the present study indicate a consistent relationship between teacher profiles, based on their educational beliefs, and the frequency of class use of computers: a teacher profile with relatively high constructivist beliefs tends to show a high frequency of educational computer use (2008, p. 2549).

Francis-Pelton and Pelton (1996); on the other hand, conducted a study to find out "the correlation between teachers' attitude and acceptance of technology". They underlined that "although many teachers believe computers are an important component of a student's education, their lack of knowledge and experience lead to a lack of confidence to attempt to introduce them into their instruction." (as cited in Gilakjani and Leong, 2012, p. 633). This result can be said that contradict the supposition of the existent study. The prospective teachers get courses about computer technology; these courses may affect their opinions about technology integration positively because they have learned how to implement them into their courses. Almost all of them disagree "I have no intention to use computers in the near future". It can be inferred that teacher candidates want to implement computerized activities in future and they feel relax in the process of implementation of computers.

6. CONCLUSION

6. 1. Introduction

This part presents implications of the study, suggestions for further studies, and a brief summary of the whole work.

6.2. Implications of the study

In the current study, it was found that prospective ELT teachers studying at Hacettepe University have positive attitudes towards integrating computer technology into language classroom. Data was collected by a questionnaire consisting of four sections. It was found that participants mostly use computers for e-mail, finding materials related to their courses, and preparing presentations, as well as social purposes such as chatting and shopping online. That is to say, they do not use programs requiring advanced computer knowledge.

Brown (2001) states that "[t]he practical applications of computer-assisted language learning are growing at such a rapid pace that it is almost impossible for a classroom teacher to keep up with the field" (p. 145). That is why, it can be inferred that prospective ELT teachers need to get training about integration of technology into language teaching. For that reason, English language teaching programs need to add courses related language teaching and technology for undergraduate students. The participants will be appointed as the teachers in near future. Therefore, developing positive opinions about technology is important so that they can implement technological tools into their courses.

Moreover, instructors can motivate students to implement technology into their courses because it is known that when teacher get training about technology integration during their undergraduate years, their frequency of using computer increases. Wozney et al. (2006) confirms this idea by stating "the amount of technology-related in-service training was significantly related to computer use in the classroom. Teachers in our study generally reported the need for in-service training" (p. 194).

It is found that prospective teachers are eager to implement technological tools into teaching process but the important issue is how to adapt them into classroom. That is why; they need to get training about technology integration both in pre-service and in-service years. Moreover, future teachers need to be encouraged to use computers.

6.3. Limitations

The limitations of the work are:

1- The participants are only third and fourth grade students studying at Hacettepe University.

2- It was limited to the items in the questionnaire.

3- The study is limited to only participants studying in 2016-2017 academic year.

6.4. Suggestions for further studies

The current thesis is conducted only by using quantitative research method. Quantitative studies are not enough to identify perceptions and attitudes of participants. Therefore, in order to have better results, a further longitudinal study can be conducted by administering a mixed method research. After the researcher collects data about the perceptions of participants with a questionnaire, s/he can interview the participants to identify factors affecting their perceptions.

Researcher can also observe students during their micro teaching activities or practicum studies to generalize the findings. In addition, researcher can observe participants when they appointed as teacher after graduation in order to see whether there is a difference in their opinions and to what extent they use computers in real classroom.

Moreover, 174 prospective ELT teachers studying at Hacettepe University participated to the study; that is why; a further research with participants from different universities should be administered to reveal the possible differences among the participants in different settings.

6.5. Conclusion

The aim of the study was to describe future English teachers' attitudes towards using computer technologies in language education. To analyze the gathered data quantitative methods were used. Each statement in the questionnaire was analyzed and explained item by item by using tables. The analysis of the data reveals that prospective ELT teachers have positive views about technology in the language teaching. Moreover, their gender, grade, and GPA do not have an

impact on their perceptions. The findings are discussed by referring the relevant literature.

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APPENDICIES

APPENDIX 1. ETHIC COMMISSION APROVAL DOCUMENT

T.C.
HACETTEPE ÜNİVERSİTESİ
Rektörlük

Sayı : 35853172/433-1819

0 9 Haziran 2016

EĞİTİM BİLİMLERİ ENSTİTÜ MÜDÜRLÜĞÜNE

İlgi: 17.05.2016 tarih ve 1216 sayılı yazınız.

Enstitünüz Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi Bilim Dalı tezli yüksek lisans programı öğrencilerinden **Zekiye ÖZER'in Doç. Dr. Arif SARIÇOBAN** danışmanlığında yürüttüğü **"Hizmet Öncesi İngilizce Öğretmen Adaylarının Yabancı Dil Öğretiminde Bilgisayar Teknolojileri Kullanımına Yönelik Tutumları(Pre-service English Language Teachers'Attitudes Towards Using Computer Technologies in Foreign Language Teaching)"** başlıklı tez çalışması, Üniversitemiz Senatosu Etik Komisyonunun **31 Mayıs 2016** tarihinde yapmış olduğu toplantıda incelenmiş olup, etik açıdan uygun bulunmuştur.

Bilgilerinizi ve gereğini rica ederim.

Prof. Dr. Rahime M. NOHUTCU
Rektör a.
Rektör Yardımcısı

Hacettepe Üniversitesi Rektörlük 06100 Sıhhiye-Ankara
Telefon: 0 (312) 305 3001 - 3002 • Faks: 0 (312) 311 9992
E-posta: yazimd@hacettepe.edu.tr • www.hacettepe.edu.tr

Ayrıntılı Bilgi için:
Yazı İşleri Müdürlüğü
0 (312) 305 1008

APPENDIX 2. ORIGINALITY REPORT

HACETTEPE ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ
YÜKSEK LİSANS TEZ ÇALIŞMASI ORİJİNALLİK RAPORU

HACETTEPE ÜNİVERSİTESİ
EĞİTİM BİLİMLER ENSTİTÜSÜ
YABANCI DİLLER EĞİTİMİ ANA BİLİM DALI BAŞKANLIĞI'NA

Tarih: 16/6/2017

Tez Başlığı: Hizmet Öncesi İngilizce Öğretmen Adaylarının Yabancı Dil Öğretiminde Bilgisayar Teknolojileri Kullanımına Yönelik Tutumları

Yukarıda başlığı verilen tez çalışmamın tamamı (kapak sayfası, özetler, ana bölümler, kaynakça) aşağıdaki filtreler kullanılarak **Turnitin** adlı intihal programı aracılığı ile kontrol edilmiştir. Kontrol sonucunda aşağıdaki veriler elde edilmiştir.

Rapor Tarihi	Sayfa Sayısı	Karakter Sayısı	Savunma Tarihi	Benzerlik Endeksi	Gönderim Numarası
16.06.2017	87	112452	15/6 /2017	%9	825441132

Uygulanan filtreler:
1- Kaynakça hariç
2- Alıntılar dâhil
3- 5 kelimeden daha az örtüşme içeren metin kısımları hariç

Hacettepe Üniversitesi Eğitim Bilimleri Enstitüsü Tez Çalışması Orijinallik Raporu Alınması ve Kullanılması Uygulama Esasları'nı inceledim ve çalışmamın herhangi bir intihal içermediğini; aksinin tespit edileceği muhtemel durumda doğabilecek her türlü hukuki sorumluluğu kabul ettiğimi ve yukarıda vermiş olduğum bilgilerin doğru olduğunu beyan ederim.

Gereğini saygılarımla arz ederim.

Tarih ve İmza

Adı Soyadı:	Zekiye ÖZER
Öğrenci No:	N14224331
Anabilim Dalı:	Yabancı Diller Eğitimi
Programı:	İngiliz Dili Eğitimi
Statüsü:	☒ Y.Lisans ☐ Doktora ☐ Bütünleşik Dr.

DANIŞMAN ONAYI

UYGUNDUR.

Yrd. Doç. Dr. Hüseyin ÖZ

(Unvan, Ad Soyad, İmza)

HACETTEPE UNIVERSITY
GRADUATE SCHOOL OF EDUCATIONAL SCIENCES
TO THE DEPARTMENT OF FOREIGN LANGUAGE EDUCATION

Date: 16/06/2017

Thesis Title: Pre-service English Language Teachers' Attitudes towards Using Computer Technologies in Foreign Language Teaching

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Date and Signature

Name Surname:	Zekiye ÖZER
Student No:	N14224331
Department:	Foreign Language Education
Program:	English Language Teaching
Status:	☒ Masters ☐ Ph.D. ☐ Integrated Ph.D.

ADVISOR APPROVAL

APPROVED.

Asst. Prof. Dr. Hüseyin ÖZ

(Title, Name Surname, Signature)

Faculty of Education

Department of English Language Teaching

Pre-service English Language Teachers' Attitudes towards Using Computer Technologies
in Foreign Language Teaching

General Instructions: The purpose of this questionnaire is to collect information about your attitudes towards computer use. This questionnaire consists of six sections. Before starting to each section please read the instructions provided. Please make sure that your answers will remain confidential.

Thank you very much for your contributions.

Section (1) Background Information

Instructions: Please indicate your response to the following questions

1) Your gender: ❑ Female ❑ Male

2) Your age: _____ **years old.**

3) Your grade: _____

4) What is your current Grade-Point Average (GPA = Academic Average)? _____

_____

Section (2) Computer Use & Literacy

Instructions: Please indicate your response to the following items:

2.1 What do you use computers for? Please put a cross (×) in the boxes below if you think it is appropriate. You can choose more than one choice.

Example: ☒ shopping online

<u>Academic</u>

☐ e-mail and mail listing

☐ web folios/e-portfolios

☐ games

☐ finding materials related to lesson

☐ preparing presentations

☐ course management software

    (e.g., WebCT, Nicenet, Moodle)

☐ submitting projects/homework

☐ video conferencing and net-meeting

☐ developing and presenting course

    materials in micro-teachings

☐ online dictionaries

☐ online discussion boards on language teaching

☐ wikis

☐ giving feedback to each other (peer feedback)

☐ search engines

☐ web blogs

☐ MOO/MUDS (multi-object orientation / multi-user domain)

<u>Social</u>

☐ chatting

☐ web blogs

☐ games

☐ shopping online

☐ search engines

☐ e-mail and mail listing

☐ wikis

☐ online dictionaries

Section (3): Instructions: Please indicate your reaction to each of the following statements by circling the number that represents your level of agreement or disagreement with it. Make sure to respond to each statement.

| Item No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Computers do not scare me at all.	1	2	3	4	5
2	Computers make me feel uncomfortable.	1	2	3	4	5
3	I am glad there are more computers these days.	1	2	3	4	5
4	I do not like talking with others about computers.	1	2	3	4	5
5	Using computers is enjoyable.	1	2	3	4	5
6	I dislike using computers in teaching.	1	2	3	4	5
7	Computers save time and effort.	1	2	3	4	5
8	Schools would be a better place without computers.	1	2	3	4	5
9	Students must use computers in all subject matters.	1	2	3	4	5
10	Learning about computers is a waste of time.	1	2	3	4	5
11	Computers motivate students to study more	1	2	3	4	5
12	Computers are a fast and efficient means of getting information.	1	2	3	4	5
13	I do not think I would ever need a computer in my classroom.	1	2	3	4	5
14	Computers can enhance students learning.	1	2	3	4	5
15	Computers do more harm than good.	1	2	3	4	5
16	I would rather do things by hand than with a computer.	1	2	3	4	5
17	If I had some money I would buy a computer.	1	2	3	4	5
18	I avoid using computers as much as possible.	1	2	3	4	5
19	I would like to learn more about computers.	1	2	3	4	5
20	I have no intention to use computers in the near future.	1	2	3	4	5

Section (4): Instructions: Please indicate your reaction to each of the following statements by circling the number that represents your level of agreement or disagreement with it. Make sure to respond to each statement.

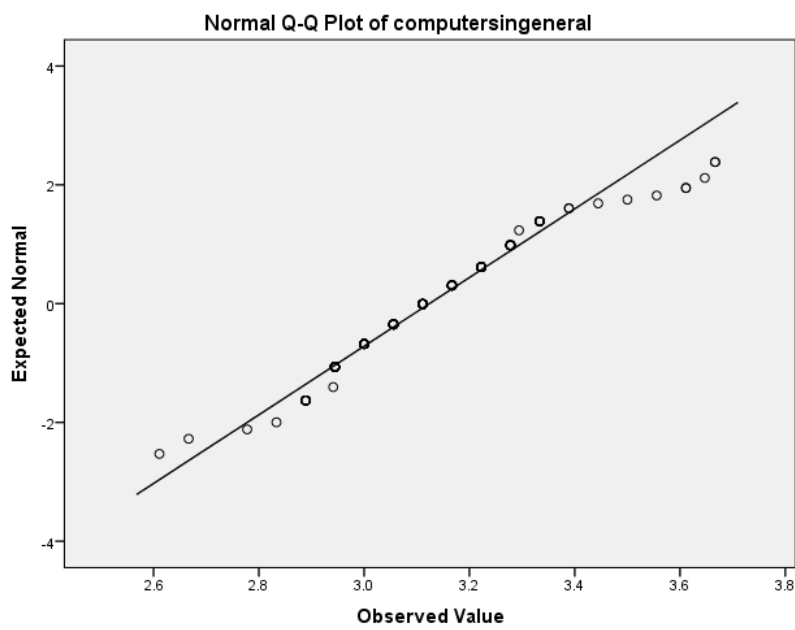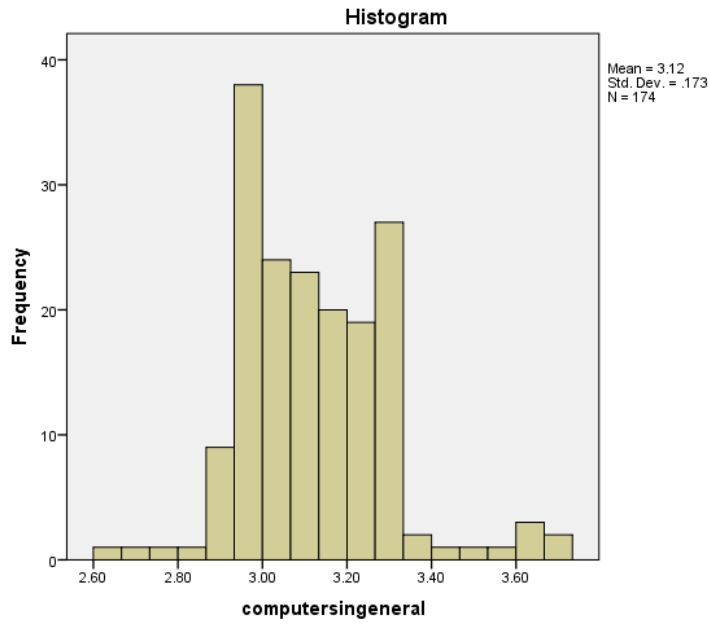| Item No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Computers improve education.	1	2	3	4	5
2	Teaching with computers offers real advantages over traditional methods of instruction.	1	2	3	4	5
3	Computer technology cannot improve the quality of students' learning.	1	2	3	4	5
4	Using computer technology makes the subject matter more interesting.	1	2	3	4	5
5	Computers are not useful for language learning.	1	2	3	4	5
6	Computers have no place in schools.	1	2	3	4	5
7	Computer use fits well into my curriculum goals.	1	2	3	4	5
8	Class time is too limited for computer use.	1	2	3	4	5
9	Computer use suits my students' learning preferences and their level of computer knowledge.	1	2	3	4	5
10	Computer use is appropriate for many language learning activities.	1	2	3	4	5
11	It is hard for me to learn to use the computer in teaching.	1	2	3	4	5
12	I have no difficulty in understanding the basic functions of computer.	1	2	3	4	5
13	Computers complicate my task in the classroom.	1	2	3	4	5
14	Everyone can easily learn to operate a computer.	1	2	3	4	5
15	I have never seen computers at work.	1	2	3	4	5
16	Computers have proved to be effective learning tools worldwide.	1	2	3	4	5
17	I have never seen computers being used as an educational tool.	1	2	3	4	5
18	I have seen some of my colleagues use computers for teaching English	1	2	3	4	5

APPENDIX 4. NORMALITY TEST RESULTS

Descriptives

			Statistic	Std. Error
computeruseandliteracyscale	Mean		2.9692	.01442
	95% Confidence Interval for Mean	Lower Bound	2.9407	
		Upper Bound	2.9976	
	5% Trimmed Mean		2.9626	
	Median		2.9500	
	Variance		.036	
	Std. Deviation		.19020	
	Minimum		2.55	
	Maximum		3.75	
	Range		1.20	
	Interquartile Range		.20	
	Skewness		.688	.184
	Kurtosis		1.776	.366
computersingeneral	Mean		3.1238	.01312
	95% Confidence Interval for Mean	Lower Bound	3.0980	
		Upper Bound	3.1497	
	5% Trimmed Mean		3.1163	
	Median		3.1111	
	Variance		.030	
	Std. Deviation		.17303	
	Minimum		2.61	
	Maximum		3.67	
	Range		1.06	
	Interquartile Range		.22	
	Skewness		.546	.184
	Kurtosis		1.311	.366

A- Normality test for computer use and literacy scale

Histogram

Mean = 2.97
Std. Dev. = .19
N = 174

Normal Q-Q Plot of computeruseandliteracyscale
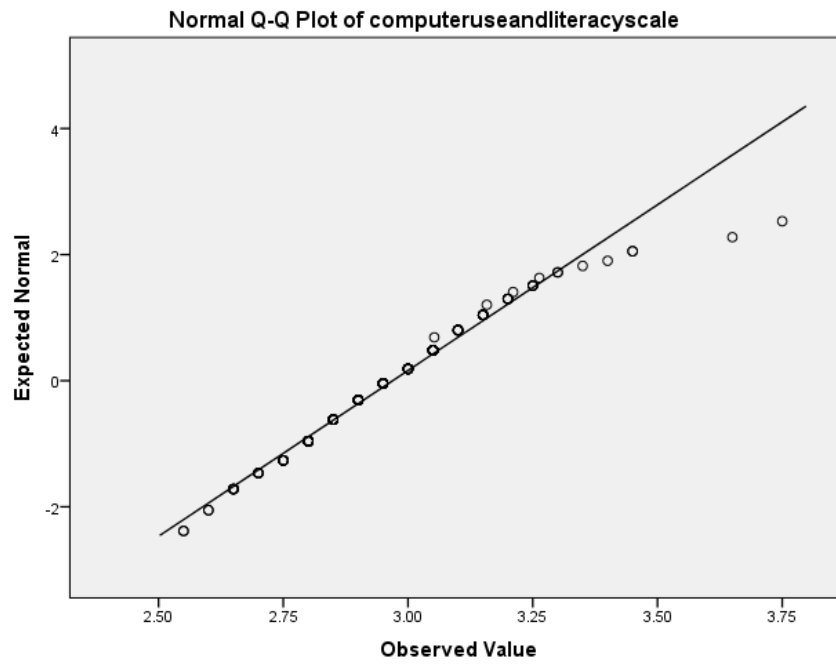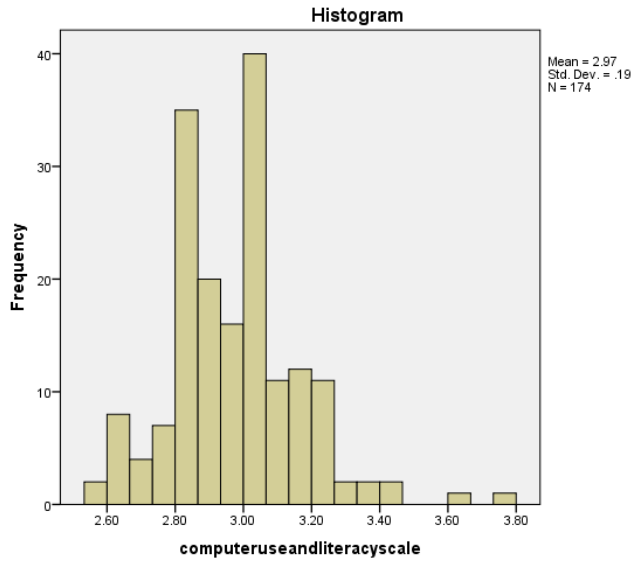
B- Normality test for "the perceptions of pre-service teacher on computers in general"

Histogram

Mean = 3.12
Std. Dev. = .173
N = 174

Frequency

computersingeneral

Normal Q-Q Plot of computersingeneral

Expected Normal

Observed Value

CURRICULUM VITAE

Kişisel Bilgiler

Adı Soyadı	Zekiye ÖZER
Doğum Yeri	Demirci
Doğum Tarihi	13.06.1991

Eğitim Durumu

Lise	Soma Anadolu Öğretmen Lisesi	2009
Lisans	ODTÜ İngilizce Öğretmenliği	2014
Yabancı Dil	İngilizce (İleri Düzey) Almanca (Başlangıç Düzeyi)	

İş Deneyimi

Stajlar	Yasemin Karakaya İlköğretim Okulu ODTÜ Koleji	Eylül 2014-Haziran 2014
Çalıştığı Kurumlar	Ömer Halisdemir Üniversitesi Hacettepe Üniversitesi	Şubat 2015-Haziran 2015 Temmuz 2015- devam ediyor

Akademik Çalışmalar

Yayınlar (Ulusal, uluslararası makale, bildiri, poster vb gibi.)

Özer,Z.(2017). An Investigation of English Langauge Teachers' Perceptions of Multicultural Education: The Case of Turkey. 26th Conference on Educational Sciences- ICES/UEBK-2017,20-23 April, Antalya,Turkey.

İletişim

e-Posta Adresi	zekiyeozer19@gmail.com

Jüri Tarihi	15.06.2017