

**T.C.**  
**AKDENİZ ÜNİVERSİTESİ**  
**EĞİTİM BİLİMLERİ ENSTİTÜSÜ**  
**YABANCI DİLLER EĞİTİMİ ANABİLİM DALI**  
**İNGİLİZ DİLİ EĞİTİMİ YÜKSEK LİSANS PROGRAMI**

**A STUDY ON E-READINESS OF TEACHERS IN LANGUAGE CLASSROOMS**

**YÜKSEK LİSANS TEZİ**

**Emre ÇALIŞKAN**

**Antalya, 2017**

**T.C**  
**AKDENİZ ÜNİVERSİTESİ**  
**EĞİTİM BİLİMLERİ ENSTİTÜSÜ**  
**YABANCI DİLLER EĞİTİMİ ANABİLİM DALI**  
**İNGİLİZ DİLİ EĞİTİMİ YÜKSEK LİSANS PROGRAMI**

**A STUDY ON E-READINESS OF TEACHERS IN LANGUAGE CLASSROOMS**

**YABANCI DİL ÖĞRETMENLERİNİN TEKNOLOJİK  
HAZIRBULUNUŞLUKLARI ÜZERİNE BİR ÇALIŞMA**

**Emre ÇALIŞKAN**

**Danışman: Yrd. Doç. Dr. Mustafa CANER**

**Antalya, 2017**

## **DOĐRULUK BEYANI**

Yüksek lisans tezi olarak sunduĐum bu çalıřmayı, bilimsel ahlak ve geleneklere aykırı düřecek bir yol ve yardıma bařvurmaksızın yazdıĐımı, yararlandıĐım eserlerin kaynakçalardan gösterilenlerden oluřtuĐunu ve bu eserleri her kullanımında alıntı yaparak yararlandıĐımı belirtir; bunu onurumla doĐrularım. Tezimle ilgili yaptıĐım bu beyana aykırı bir durumun saptanması durumunda, ortaya çıkacak tüm ahlaki ve hukuki sonuçlara katlanacaĐımı bildiririm.

01.03.2017

Emre ÇALIŐKAN

T.C.  
AKDENİZ ÜNİVERSİTESİ  
EĞİTİM BİLİMLERİ ENSTİTÜSÜ MÜDÜRLÜĞÜNE

Emre ÇALIŞKAN'ın bu çalışması **03.02.2017** tarihinde jürimiz tarafından **Yabancı Diller Eğitimi** Anabilim Dalı **İngiliz Dili Eğitimi** Tezli Yüksek Lisans Programında **Yüksek Lisans Tezi** olarak **oy birliği/oy çokluğu** ile kabul edilmiştir

İMZA

**Başkan** : DOÇ. DR. MUSTAFA ZEKİ ÇIRAKLI  
(Karadeniz Teknik Üniversitesi, Edebiyat Fakültesi, Batı Dilleri ve Edebiyatı)



**Üye** : PROF. DR. ARDA ARIKAN  
(Akdeniz Üniversitesi, Edebiyat Fakültesi İngiliz Dili ve Edebiyatı)



**Üye (Danışman)** : Yrd. Doç. Dr. Mustafa CANER  
(Akdeniz Üniversitesi, Eğitim Fakültesi, İngiliz Dili Eğitimi)



**YÜKSEK LİSANS TEZİNİN ADI:**

**A STUDY ON E-READINESS OF TEACHERS IN LANGUAGE CLASSROOM  
(YABANCI DİL ÖĞRETMENLERİNİN TEKNOLOJİK HAZIRBULUNUŞLUKLARI ÜZERİNE BİR ÇALIŞMA)**

**ONAY:** Bu tez, Enstitü Yönetim Kurulunca belirlenen yukarıdaki jüri üyeleri tarafından uygun görülmüş ve Enstitü Yönetim Kurulunun ..... tarihli ve ..... sayılı kararıyla kabul edilmiştir.

Doç.Dr. Mehmet CANBULAT  
Enstitü Müdürü

## ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my professors for their support of my master's study and research.

I would first like to thank to Assoc. Prof. Dr. Binnur GENÇ-İLTER and Asst. Prof. Dr. Fatma Özlem SAKA and Asst. Prof. Dr. Simla COURSE, whom I will always admire as teachers. Besides, I am proud to be a student of Prof. Dr. Arda ARIKAN and Assoc. Prof. Dr. Murat HİŞMANOĞLU.

My sincere thanks go to my supervisor Asst. Prof. Dr. Mustafa CANER for his patience, motivation, enthusiasm, and immense knowledge. His guidance have helped me in all the time of research and writing of this thesis.

I would also give my special thanks to my valuable jury member, Assoc. Prof. Dr. Mustafa Zeki ÇIRAKLI to whom I owe a lot, for his great guidance to shape this study.

I would also like to thank my friends from MA program and my colleagues from my school. Their moral support and advice had been precious during the whole time and I must express my thanks to the teachers who were kind enough to participate in my study.

I would like to thank my dear friend, Evrim YALÇIN for his help to the study.

Finally yet importantly, I wish to give my thanks to my parents, my father and mother, Hüseyin ÇALIŞKAN and Emine ÇALIŞKAN. They have always motivated me throughout this study. Beside I would like to thank my wife, Işıl ÇALIŞKAN for her continuous support and encouragement during my years of study.

## **ABSTRACT**

As it is known, foreign language teaching has an important place in the Turkish Education System as well as in the world. Today, language teaching requires fulfilling a number of special conditions, not merely transferring existing knowledge. Transferring the evolving technology of our era to the world of education is the most important of these special conditions. It is inevitable that our teachers will benefit from technology while teaching today's digital age children. In this direction, our teachers must have at least as much technology knowledge as their digital age children and use it effectively in combination with this knowledge of technology and pedagogy knowledge.

In this context, knowing how ready English teachers are in terms of integrating technology in their lessons will contribute to the use of educational technologies supported by the Ministry of National Education in the The purpose of this study is to try to determine the profile of the English teachers who are working in Antalya in terms of their readiness to use the technology.

Regarding this purpose,Qualitative and quantitative data gathered to form a response to research questions were analyzed by using appropriate statistical programs and findings were reported in the direction of the research questions

First of all, in this study, the readiness level of of English teachers for the technology is researched and it is found that a little more than half of the participants have a negative attitude towards the integration of the technology into the classroom environment and therefore their readiness is relatively low.

The relation between gender and e-readiness level has been examined and it is found out that there is no significant difference in gender context in terms of technological readiness in general terms; It has been found that after the in-service training activity on the use of educational technologies in the classroom environment, female participants will feel more secure about their use of technology in their classes

Since professional experience is important, the relation between participants' level of experience and their e-readiness level has been analysed, it has been determined that participants have a negative attitude towards the use of educational technologies in their classes, with about half of the participants with more professional experience, looking at their readiness for technology use and therefore their readiness to use technology in their class.

Lastly, it is found that teachers are concerned about the use of technology in daily life and the use of technology in class, while demographic findings show that teachers often use technology in their everyday lives, teachers generally worry about adaptation of technology to education environments.

The analysis of this study's data reveals that a little more than half of the teachers who teach English as a foreign language in the sample of Antalya province have low levels of readiness to use technology. In this context, institutional studies can be carried out in order to improve the attitudes towards the use of technology in the teachers' classes by increasing their acquaintance and readiness with educational technologies through in-service training activities which do not provide these more functional and extra obligations.

## ÖZET

Bilindiği gibi yabancı dil öğretimi dünyada olduğu gibi Türk Eğitim Sisteminde de önemli bir yere sahiptir. Günümüzde dil öğretimi demek salt var olan bilgiyi aktarmadan öte bir takım özel şartları yerine getirmeyi gerektirmektedir. Çağımızın gelişen teknolojisini eğitim dünyasına aktarmak bu özel şartlardan en önemlisidir. Öğretmenlerimizin günümüz dijital çağı çocuklarına her hangi bir konuyu öğretirken teknolojiden yararlanması kaçınılmazdır. Bu doğrultuda öğretmenlerimizin en az dijital çağı çocukları kadar teknoloji bilgisine sahip olması ve bu teknoloji bilgisi ile pedagoji bilgisini birleştirerek etkili bir şekilde kullanması gerekmektedir.

Bu bağlamda İngilizce öğretmenlerinin derslerinde teknolojiyi entegreye etmeye ne kadar hazır olduklarının bilinmesi, Milli Eğitim Bakanlığı tarafından desteklenen bu teknolojilerin sınıfta kullanılmasına katkı sağlayacaktır. Bu çalışmanın amacı Antalya ilinde görev yapan İngilizce öğretmenlerinin teknolojiyi kullanmaya hazır bulunuşluklarının profilini belirlemeye çalışmaktır.

Bu amaç doğrultusunda araştırma sorularına yanıt oluşturmak üzere toplanan nitel ve nicel veriler uygun istatistik programları kullanılarak analiz edilmiş, elde edilen bulgular araştırma soruları doğrultusunda raporlaştırılarak sunulmuştur.

Öncelikli olarak bu çalışmada İngilizce öğretmenlerin teknolojiye hazır bulunuşluk seviyelerinin ne olduğu araştırılmış ve katılımcıların yarısından biraz fazlasının teknolojinin sınıf ortamına entegrasyonuna karşı olumsuz tutuma sahip oldukları dolayısıyla hazırbulunuşluklarının nispeten düşük olduğu bulunmuştur.

Katılımcı görüşlerinin cinsiyet bağlamında bir değişiklik gösterip göstermediğine bakılmış, genel anlamında teknolojiye hazırbulunuşluk açısından cinsiyet bağlamında bir manidar değişiklik gözlemlenmezken; eğitim teknolojilerinin sınıf ortamında kullanılması ile ilgili bir hizmetiçi eğitim faaliyeti sonrasında kadın



katılımcıların kendilerini sınıflarında teknoloji kullanımını açısından daha güvenli hissedecekleri bulunmuştur.

Mesleki tecrübe önemli olduğundan, katılımcıların mesleki tecrübesi ile teknoloji kullanımına hazır bulunuşluklarına bakılmış, mesleki deneyimi fazla olan katılımcıların yaklaşık yarısı sınıflarında eğitim teknolojilerinin kullanımına yönelik olumsuz tutuma sahip oldukları, dolayısıyla sınıflarında teknoloji kullanımına hazır bulunuşluklarının düşük olduğu belirlenmiştir.

Son olarak öğretmenlerin günlük hayatta kendi teknoloji kullanımları ile sınıfta teknoloji kullanımları arasındaki ilişkiye bakılmış, demografik bulgular öğretmenlerin teknolojiyi günlük yaşamlarında sıklıkla kullandıklarını gösterse de genel anlamda teknolojinin eğitim ortamlarına uyarlanması noktasında öğretmenlerin kaygı yaşadıkları tespit edilmiştir.

Bu çalışmanın verilerinin analizi genel hatlarıyla Antalya ili örneklemindeki İngilizce'yi yabancı dil olarak öğreten öğretmenlerin yarıdan biraz fazlasının teknoloji kullanmaya hazır bulunuşluk düzeylerinin düşük olduğunu ortaya çıkarmıştır. Bu bağlamda bu daha işlevsel ve ekstra yükümlülükler getirmeyen hizmet içi eğitim faaliyetleri yoluyla, eğitim teknolojileri ile tanışıklıkları ve hazır bulunuşlukları artırılarak öğretmenlerin sınıflarında teknoloji kullanmaya yönelik tutumlarının olumlu yönde gelişmesi için kurumsal çalışmalar yürütülebilir.

## TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGEMENTS .....	i
ABSTRACT .....	ii
ÖZET.....	iv
TABLE OF CONTENTS .....	vi
LIST OF TABLES .....	viii
LIST OF FIGURES .....	x
CHAPTER 1 .....	1
INTRODUCTION .....	1
1.1 BACKGROUND TO THE STUDY .....	1
1.2. STATEMENT OF THE PROBLEM .....	8
1.3 PURPOSE OF THE STUDY .....	9
1.4 SCOPE OF THE STUDY .....	10
1.5 SIGNIFICANCE OF THE STUDY .....	10
1.6 RESEARCH QUESTIONS .....	11
1.7 LIMITATIONS .....	12
1.8 OUTLINE OF THE STUDY .....	12
CHAPTER 2 .....	14
LITERATURE REVIEW.....	14
2.1. TECHNOLOGY READINESS AND ITS RELATION TO LANGUAGE EDUCATION.....	17
2.2. E-READINESS OF TEACHERS FOR TECHNOLOGY INTEGRATION .	19
2.3. E-READINESS OF TEACHING ENVIRONMENT FOR TECHNOLOGY INTEGRATION.....	24
2.4. TECHNOLOGY INTEGRATION IN EDUCATION IN TURKEY .....	27
2.5. RECENT STUDIES IN LINE WITH E-READINESS OF TEACHERS FOR TECHNOLOGICAL INTEGRATION .....	32
CHAPTER 3 .....	35

METHODOLOGY .....	36
3.1. STUDY DESIGN .....	36
3.2. PARTICIPANTS .....	37
3.3 DATA GATHERING INSTRUMENT .....	39
3.3.1. VALIDITY AND RELIABILITY ANALYSIS .....	41
3.4. DATA GATHERING AND ANALYSIS .....	45
CHAPTER 4 .....	50
FINDINGS AND DISCUSSION .....	50
4.1 FINDINGS IN RELATION TO DEMOGRAPHIC INFORMATION: .....	50
4.2 FINDINGS IN RELATION TO RESEARCH QUESTIONS .....	53
CHAPTER 5 .....	70
CONCLUSION .....	70
REFERENCES .....	73
APPENDIX .....	82

## LIST OF TABLES

### TABLES

Table 1 Demographic Profile of the Participants .....	38
Table 2 Results of KMO and Bartlett Test .....	42
Table 3 Communalities .....	42
Table 4 Factor Analysis Results of the Inventory.....	43
Table 5 Sub-dimensions determined as a result of factor analysis and their reliability coefficients .....	44
Table 6 Total Variance .....	46
Table 7 Factor Scree Plots of the Attitude Scale regarding Technology Use and Common Factor Variance .....	48
Table 8 Factor Scree Plots of the Attitude Scale regarding Technology Use and Common Factor Variance (Reanalysed) .....	48
Table 9 Teachers' Access to Information and Communication Technology.....	49
Table 10 Teachers' Technology Integration in Education on Weekly Basis .....	52
Table 11 Percentages and frequencies of items in the questionnaire.....	54
Table 12 Correlation between "item7" and "Level of Experience" and "Level of Education" .....	56
Table 13 Correlation between "Item 8" and "Level of Experience" and "Level of Education" .....	57
Table 14 Teachers' Self-Assessment to the item 22 .....	59
Table 15 Correlation between "item 11" and "Level of Experience" and "Level of Education".....	61
Table 16 Teachers' Alienation Towards Use of Educational Technology due to Fear of Making Mistakes .....	2
Table 17 Correlation between "item 19" and "Level of Experience" and	

“Level of Education” ..... 64  
Table 18 Correlation between “item 19” and “Gender” ..... 65

## LIST OF FIGURES

Figure 1 Scree Test depiction .....	47
-------------------------------------	----

## **CHAPTER 1**

### **INTRODUCTION**

This section includes an overview of the role of technology and technology readiness of the teachers within the field of language education working in high schools in Turkey. This chapter will cover purpose and rationale of the present study, the research questions, and background information on use of educational technology in language classrooms.

#### **1.1 BACKGROUND TO THE STUDY**

Technology is one of the phenomenon that people exposed to in their lives on daily basis. It invaded everywhere including homes, work places, offices, markets, business environment and inevitably the sphere of education. In line with its rapid expansion throughout years, technology has been used by foreign language teachers as a tool for instruction to enrich their teaching and learning strategies in the learning environments as well. Although some educational institutions still employ traditional approaches in language teaching, technology becomes the major instrument of the curriculum both in higher education, in primary and secondary education in all over the world recently.

From the historical perspective, it can be claimed that technology use and its integration into the learning environments have started at very early ages when teachers started to use the hornbooks, known also as wooden paddles, with printed lessons, which were used to assist students in learning the alphabet or a religious verses during the colonial era. However, the last three decades of the 1800s have witnessed great advancements in technology integration into the classrooms by implementations of magig lanterns, a primitive version of a slide projector that projected images printed on glass plates in

1870; chalkboard in 1890 and pencil in 1900. By the beginning of the 19<sup>th</sup> century, the emergence of radios sparked an entirely new wave of learning through on-air classes that popping up for any student within broadcasting range. Since then, the developments in educational technologies especially computer-mediated communication and emerging forms of new media further enhance the use of technology for educational purposes.

The first attempts of computer-mediated technology integration in learning and teaching environments dates back to 1970s by the introduction of computers in educational environments (Pollard & Pollard, 2004). By 1974, more than 2 million teachers experienced computers in their classrooms and by 1975, 55% of schools had access to computers, and 23% of them were using computers as primarily for instructional purposes and educational tools (Pollard & Pollard, 2004). At the beginning of 1980s, computer technology made improvements that altered functions of computers in the classroom. As Jennings (1996) claims, the merging of computers with communication networks removed the borders of the learning environments and made it possible to allow global access to knowledge and information anywhere in the world. Availability of information from anywhere lead a shift in educational paradigm and by the 1990s, learning was no longer confined to the physical school building or the classroom. In line with these developments, the role of the teacher and students has changed as well. For instance, teachers were not considered as transmitter of knowledge but facilitator; students were no longer considered as passive information receivers but active knowledge users. In the same vein, teaching and learning materials that were used in language classroom were subjected to change, then course books were supported by multimedia materials in audio, video, and digital form.

It has been a common belief that advances in technology could solve all of the problems in learning. As a reflection of this understanding, Thomas Edison said in 1913 that “books will soon be obsolete in schools...” (Reiser, 1987). However, this prediction has not become a reality. When a new medium entered into the educational scene, there was initial enthusiasm and interest, which eventually faded that this medium actually



had only a minimal impact on instructional practices. While it was predicted in the 1980s that computers would revolutionize instruction, data gathered from schools in the mid 1990s revealed that revolution still had not occurred (Reiser, 2002). The late 1990s experienced growing presence and integration of computers and the Internet in schools. Therefore, it is reasonable to predict that in the first decade of the 21st century, new media will bring about greater changes in instructional practices than its preceding forms. It is also logical to expect that such changes are likely to happen more slowly and be less extensive than the situation currently predicted by media enthusiasts (Reiser, 2002). As Molenda (2002, 33) indicates the existence of some “human factors such as resistance to factors that require new ways of working and the need for specialized training impinge on trainers’, teachers, and professors’ use of technology. Due to these human factors, as they play out in training and education, it is inevitable that technology use lags behind technology availability”.

In the last decades, technology has made a substantial development influencing various fields within education. As some scholars claim (Lu, 1996; Uzunboylu, 2005; Abu Bakar, 2007; Coryell & Chlup, 2007), most educational institutions have evolved their style of teaching by the use of various types of technology in many countries.

The form of technology utilized within the field of education coined as ‘educational technology’ is defined by the Association for Educational Communications and Technology (2016) as “the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources”. In line with this definition, it can be deduced that educational technology includes both material tools and theoretical principles for facilitating learning and teaching. Therefore, in line with its comprehensive nature, educational technology stands as the umbrella concept under which various forms of technology supported learning such as computer aided learning, e-learning, m-learning, blended (b-) learning and technology-enhanced learning as well as teaching such as multi-modal teaching and internet-based training.

Educational systems existing in various parts of the world have integrated technology into their agenda in a way, which alters the practices and competences of both teachers and students. Within many of these classrooms, the use of technological tools and resources supports students as they search for information, design projects, and publish results. Teachers create programs, provide advice, and monitor progress by using some of these educational technologies. Actually, the technology in classrooms just complemented what a teacher does naturally.

Regarding the development of educational technology, while it was the use of whiteboard, radio tapes and cassette players in classrooms in 1960s which created difference in the nature of education, contemporary educational technology includes a wide range of tools that can be utilized in learning and teaching environment. It is an acknowledged fact that educational technology covers a huge variety of tools, artifacts, and practices such as multimedia computers, internet, videotapes, online chat-rooms, Web pages, e-mail, electronic journals, databases, audio and video conferencing (Zhao, 2003; Vi, 2005). In addition to these tools, recently innovated technologies have been incorporated into the process of education such as Web 2.0 tools, smart phone applications, Moodle, Wiki, interactive or smart whiteboard to the degree that integration of smart board technology is realized even into educational computer games. Scholars commonly approved that the interactive nature of technology, characterized by Web 2.0 tools, provides new opportunities for students to learn through allowing them to do a task, receive feedback on it, and then build new knowledge.

The recent technologies, which ease the access to the information through telecommunication systems or instruments with communication capabilities, also expanded what students can learn by providing them with access to an ever-expanding store of information. The educational technologies that provide access to information through telecommunications generally known as Information and Communication Technologies (ICT). The value-added role of ICT as the most widely used form of

educational technology is attributed to both their use for particular purposes and their convenience for utilization during teaching and learning processes rather than to their mere presence in the classroom or the special features associated with the technologies (Bain, McNaught, Mills & Lueckenhausen, 1998; Jonassen, 2000; Kim & Reeves, 2007). Therefore, a logical deduction would follow the idea that the role of educational technologies for student learning ought to be understood within the context in which it is appropriated (Bain et al, 1998; Salomon & Almog, 1998). As Salomon and Perkins (1998) have argued compellingly that cognitive and social aspects of learning are intertwined and they have further asserted that any research on learning and technology should use a composite unit of analysis that involves the cognitive activity, the learning goal, the social context and the learning medium and materials. Moreover, Bransford, Brown and Cocking (2000) claim that learning environments influence the extent of student engagement. Similarly, some scholars (Pajares, 1992; Kember& Kwan, 2000) believe that the design of the learning environments, in turn, is influenced by teachers' views and orientations about effective teaching. Thus, it is feasibly normal that in order to have a full understanding of technology use in teaching contexts surely require examining the learning environment, including the nature and extent of student engagement, the rationale for the use of educational technology, as well as views on effective teaching.

With the rapid growth of education technologies, that covers diverse subjects and skill offerings, it has become compulsory for educators, educational policy makers, and curriculum and instruction developers to provide a broad array of technologies within and through all learning management systems, which correspond to student's interests, abilities, and needs with well-defined learning objectives and career goals. Such a transformation should be analyzed by focusing on complex interrelations formed between government institutions, policy makers, teachers and students. Although the complexity at issue is common to nearly all countries whose peculiar implementation and experiences introduced in the following sections, Turkish case, as the topic of the present study, reveals a unique picture.

In Turkish context, educational technological devices such as ICT tools, smart boards and computer diated technologies introduced in classrooms in parallel with developments in the field of education and integration of technology into education across the world. Similar to other countries, there has emerged a substantial transformation in educational sphere regarding introducing latest technology in learning environments and remodeling course contents and practices of teaching with the collaboration of policymakers from the Ministry of National Education (MoNE) and other stakeholders.

In the last few decades, Turkey has made innovative attempts to increase ICT use of teachers. While there was around 2800 ICT endowed classes by the beginning of new millennium, the number doubled in five years by adding 3000 more ICT based classes in all levels of primary, secondary and college level education in Turkey. Additionally, in 2005, by the establishment of ‘National Education Portal’ project of MoNE, a great deal of teachers also granted with laptops as some initiations that attempt to increase ICT use among teachers. Although the potential of technology has been valued early on and ICT use is increasing, the extent and nature of ICT usage in Turkish educational institutions were beyond the expectations. Thus, in 2010, in order to open “the gateway to the future in education” MoNE has initiated another project, known as **Movement to Increase Opportunities and Technology** or shortly “Fatih Project” (Turkish: *Fırsatları Artırma ve Teknolojiyi İyileştirme Hareketi*). By means of FATİH project, the Turkish government intend to integrate state-of-the-art computer technology into Turkey's public education system. Very briefly, with the launch of the FATİH project, classes will receive smart boards, students will receive tablet computers and classes will be enriched with the use of e-books.

Before implementation of these innovative attempts, some legal decisions and laws put into service for in service training activities of teachers on educational technology use in their classrooms. For instance, in accordance with the Directive No: 2506 (1999) which is tendered by the MoNE aiming at increasing technology use at schools

demanded all the teachers have to use educational technologies in their classrooms. Furthermore, The Directorate General of Educational Technologies under the scope of the MoNE prepared another directive in order to enhance and promote using technology in classrooms in 2010. As the result of these attempts, teachers in all branches provided in-service trainings for technology use including how to use smart boards and how to integrate information technologies in their course contents. Apart from conventional in service trainings given to teachers in offline space and time, the MoNE has started to provide in-service trainings on use of educational technology in online platforms through distance education (Sarı, 2015).

As technology use and their integration into the learning environments becomes the agenda of every kind of educational institutions throughout the worldwide, an assessment of technological readiness of teachers becomes essential for the successful implementation of ICT as an aid in every branches of instruction including foreign language teaching. Because, in line with the general trend, utilization of technology for educational purposes has also targeted the English as a foreign language (EFL) education. It is a fact that level of readiness of teachers' for technology integration into their learning environments has close connection with the attempts of enriching the learning and teaching practices in the classroom. Acknowledging this considerable relation between utilization of ICT for learning and teaching purposes, both governmental and non-governmental organizations provide the necessary support to integration of technology into the teaching and learning environments. Various studies in the field evidenced that there are many of advantages of using technology in the classroom such as enhancing learner's motivation and bringing success. Likewise, there are plenty of studies on teachers' satisfaction about using educational technology in the classroom both in national and international contexts. However, although considerable literature on student and teacher engagement about the use of technology in the classroom exist; the current and available literature revealed that the technology integration into the learning and teaching environments has not been studied in relation

to teachers' technological readiness regarding technology integration into the foreign language teaching environments especially in Turkish context.

Although various forms of ICT have been widely used in EFL classrooms for quite some time and utilization of educational technologies has changed the role of both teacher and student in those classrooms, the level of teacher's competence and readiness regarding technology use for educational purposes in Turkey has become a major question, which requires quite satisfactory answer.

Therefore, the present study will dwell on technological readiness of the EFL teachers in high schools who utilize educational technology in their classrooms. For this purpose, the present study will examine the level of e-readiness of teachers in language classrooms in terms utilization of technology for educational purposes in addition to teachers' attitude and perception towards the use of educational technologies in their EFL classrooms.

## **1.2. STATEMENT OF THE PROBLEM**

The latest techniques and methods in foreign language education have been developed in many areas, where they took a basic aspect in technology implementation. The educational field gets its percentage from these changes, which aims at enhancing the educational process and developing its methodologies along with the teaching methods by shifting gradually from the traditional to modern educational system supported by ICT technologies in all over the world as well as in Turkey.

Various researchers in abroad conducted several studies on technology use and technology readiness of teachers in the learning environments and their results shed light on the issue of readiness of teachers in terms of ICT use in the classroom. For instance, according to NCES report (2003), although the classroom technology implementation has boosted dramatically over the past three decades in America, only

20% of teachers regarded themselves as well prepared to use technology in their classes. Further, in another study conducted in the USA, Ravitz, Wong, and Becker (1999) indicated that in integrating technology into a classroom nearly 40% of teachers need regular assistance, which indicated that almost half of the teachers in the study were not ready to use the educational technologies in their classes. The challenge results from establishing and implementing practices to advance the knowledge and competence indispensable for teachers in order to use classroom technology as a teaching tool for narrowing the gaps in student achievement.

The review of available literature revealed that there are limited research that conducted to understand the differential perceptions of technology readiness of teachers within schools. However, previous analysis and research directing on discovering the conditions and barriers to effective technology integration has shed some light on the concerns that teachers have in integrating technology into their classroom. Specifically, it can be claimed that little is known regarding the general level of congruence of teachers' perceptions of technology readiness in foreign language education in Turkish context. Thus, it is believed that the present study will contribute to fill the gap in the existing literature by examining the readiness of teachers in the field of technology use in foreign language classrooms.

### **1.3 PURPOSE OF THE STUDY**

The present study attempts to examine in-service English as a Foreign Language teacher's technology readiness levels in their language classrooms. Further, the study will examine the correlations of some variables such as educational background, gender, teaching experience and daily technology use frequencies of in-service EFL teachers on the technology readiness. The discrepancies between these variables -if they exist- might provide new dimensions for teacher education programs to improve both the program and quality of pre-service teacher foreign language teachers. In light

of abovementioned dynamics and facts, the main objective of this study is to figure out the profile of teachers' technology use readiness in language classrooms. Additionally, the present study aimed to determine the factors and dynamics behind teachers' level and quality of educational technology utilization in language education and make suggestions with regard to effective utilization of educational technology.

#### **1.4 SCOPE OF THE STUDY**

Along with the the main purpose of the study which was examining the technology readiness of in-service EFL teachers, the context in wich the present study has been conducted will be briefly described. The in-serice EFL teachers in the present study are teaching English as a Foreign Language in primary, secondary or high schools within the curriculum and educational technologies provided by MoNE. Since the aim of this study to gather data on technology use readiness of EFL teachers, those teachers who work in state schools with varying teaching experiences in Antalya were asked to participate in the present study.

#### **1.5 SIGNIFICANCE OF THE STUDY**

The technology invaded all aspects of human lives in recent days. Everyone regardless of their ages has started to use technology with varying purposes in their social lifes all around the world. Inevitably, the conqurrence of technology accepted among the young people who were in their school age. Thus, students who were assumed as native digitals use every kind of technology very effectively. However, the teachers of those technology-bounded students might be beyond the technology use proficiencies of those native digitals. The review of available litreture put forward that teachers should use the technologies in their classrooms effectively. Moreover, the studies in this aspect



revealed that technology familiar teachers are regarded as efficient teachers in their fields. There are plenty of studies, which examined the effectiveness of teachers' technology use in various aspects. However, little attention has been directed towards the teachers' readiness on technology use in the classrooms, especially in EFL classes. Although there are limited number of studies focusing on technology readiness of various teachers in abroad context, there is not any study specifically focusing on EFL teachers' technology readiness in Turkish context. Thus, this study will attempt to cover this point to have a better understanding of EFL teachers' technology use readiness in order to shed light on their professional development. The technology readiness (t-readiness) profile of in-service EFL teachers might contribute both the lack in the literature as well as foreign language teaching policies in Turkey.

## **1.6 RESEARCH QUESTIONS**

In line with the main objective, the present study will seek for the answers to the following research questions:

1. How do teachers perceive their levels of technology readiness?
  - a. Is there any relationship between the technology readiness and the teachers' educational backgrounds?
  - b. Is there any difference in teachers' perception of technology readiness across their gender?
  - c. Is there any difference in teachers' perceived technology readiness levels across their teaching experiences?
  - d. Is there any relationship between the daily technology use of teachers and their perceived technology readiness?

## **1.7 LIMITATIONS**

Although this study attempts to figure out technology readiness profile of EFL teachers, the data of the study were gathered from in-service EFL teachers working in Antalya region. Further, the data of the study gathered through an online questionnaire that asks teachers readiness levels from varying perspectives as self-reported data. Thus, the self-reported data gathered from in-service EFL teachers may not reflect their actual technology use profiles. Hence, the limitations of the present study were the self-reports of teachers and its scope which is Antalya region. Although the findings cannot be generalized to all EFL teachers in Turkey, the results may shed light on the technology readiness levels of EFL teachers.

Additionally, although the research method generate an intact research design, the present study might still reserve a considerable level of limitation. To begin with, choosing online survey as the major data gathering technique includes itself a quite powerful assumption that teachers participating to the research has already competent and knowledgable with regard to use of ICT to a certain level. Therefore, this preference might result in exclusion of portion teachers who work in those schools. Another limitation might stem from question format, which does not provide any possibility for declarative and expressive answers bearing rich content rather than a series of simple affirmative and negative answers given to question. However, despite these limitations, it is believed that the research design and methodology applied in this study are efficient enough to answer the research questions introduced above.

## **1.8 OUTLINE OF THE STUDY**

In light of abovementioned reasons and objectives, Chapter 1 presents a general sketch of the research topic and research questions by referring to purpose and significance of the study. Additionally, the chapter ends with limitations for the present study.

Chapter two reviews related literature and introduces the theoretical background on the issue by focusing on the history of the utilization of technology in language education, technology readiness and its relationship with language education. Further, Chapter two attempts to shed light on educational reasons for technology integration into language education, technology readiness of foreign language teachers, t-readiness of teaching environments, as well as Turkey's attempt to technology integration in educational settings.

Chapter Three addresses the methodology of the present study. This chapter describes the design and methods used for the present study as well as data gathering instruments and the procedures implemented in analyzing the data. It also includes information about the characteristics of the sample, instruments used in the study, and procedures for collecting and analyzing the data.

Chapter Four reports the results obtained from the gathered data and its analyses. Additionally it presents quite detailed discussion of the study's most significant findings with the help of several tables with statistical data.

Chapter Five provides a brief summary of the present study and the conclusion with the suggestions for future implementation and for revision in educational policy for Turkish context.

## **CHAPTER 2**

### **LITERATURE REVIEW**

In this section of the present study, the theoretical framework that illustrates various perspectives regarding the dynamics and motivations influencing technology integration into the language classrooms and the related literature composed of recent studies on technology integration into language classroom will be closely analysed in multidimensional terms.

Since the beginning of the information age, ICT has maintained a crucial role in improving the quality of education. Policy makers recognize and realize the significance that ICT should be integrated in education systems (UNESCO, 2003). Integration of ICT into education is defined as using ICT effectively and efficiently in all dimensions of the educational process including the necessary infrastructure, curriculum and teaching-learning environments (Earle, 2002). When the related literature reviewed, it is observed that technology has been used for years in teaching and learning environments since it enhanced the teaching through providing authentic sources for teachers. It can be claimed that the early attempts of integrating technology in language classroom have started by the invention of phonographs in 1918. In that period, phonographs were used to teach pronunciation in the language classroom. According to Betrus and Molenda (2002), technology was first used to support instruction especially when early visual instruction courses were taught by means of flat pictures, globes, and opaque projectors used in the language classroom. Following this period, the technology integration history has witnessed the use of radios for language teaching purposes by 1950s. According to Willis and Mehlinger (1996:985), after 1950s “lantern slides, maps, and pictures progressed through film, radio, and television, and programmed learning machines” have been started to be utilized for language teaching. While television and broadcasts were the major instruments of

teaching in the mid-20<sup>th</sup> century, the use of overhead projector was considered as a significant tool of educational technology which replaces the use of chalkboard by the end of the century. However, introduction of multimedia hardwares such as CDroms and web software programs have opened new dimensions in integration of educational technology in language classroom and educational technology utilized in language classroom has become obliged to renew itself in the millennium in line with the developments in information and communication technologies and emergence of new media forms in the 21<sup>st</sup> century.

Literature on integration of technology into language and teaching programs reveals that first attempts of technology integration was realized by following the behaviorist perspective dominant in 1960s which favors technology use in the language classroom based on imitation, practice, reinforcement and habit formation. As Fouts (2000) presents, most of the computer's function focused on basic skills and knowledge in different content areas, programmed instruction, drill and practice. In this sense, Skinners' teaching machine (1958) which based on programmed-instruction can be accepted as the first behaviorism originated tool in educational technology. Following this period, language laboratories and audio tapes used effectively in the late 1970s. Further, communicative approaches gained popularity by the 1980s' educational technology resulting a great shift from imitation and memorization to communicative aspects. The new millennium coined a new term to educational field as 'information and communication technologies' (ICT) following a socio-cognitive approach based on Vygotsky's socio-cultural constructivism.

By means of adapting educational technology in language classroom, teachers were able to shape their courses based on their students' individual difference and learning styles. However, although various technological devices has existed in language classrooms such as tape recorders for listening activities since the early 20<sup>th</sup> century, substantial change in the nature of technological development giving way to the

emergence of new media with its more interactive and customizable features has transformed the relation between education and technology.

In line with the rapid developments in information technology and its common use in everyday life, the focus in the field education has turned to use of technology in every aspects of teaching including language classes. It is commonly accepted that the widespread use of the Internet in schools and in home settings has triggered the expansion of the use of technology in foreign and second language instruction as well. Thus, language education has substantially benefitted from the use of education technology for various academic purposes. Dorathy and Mahalakshmi (2014) claim that the growth of the technology has facilitated the growth of the English language and use of technology in language classes has provided students the chance of a fast and permanent learning.

It is obvious that traditional language teaching methods can no longer be the sole method to catch the attention of students in the existence of the rapid growth of computer technology (Aufderheide & Firestone, 1993). Recent educational technologies offer opportunities for language teachers to shape their classes in accordance with differences, peculiarities and interests of the learners. As a result, the use of technology can serve as a tool for helping teachers understand individual learning patterns of the children they teach (Kumar & Vigil, 2011). Moreover, technology has proven to be an effective method of giving students opportunities to engage in basic drill and practice, simulations, investigation, or communication activities that are matched to their individual needs and abilities (Baby, 1992). In the classroom, different methods that are based on technology can be used to simplify teacher duties and improve the quality of education (Starcic, 2010). For instance, through technological integration, pupils do not have to write their homework in notebooks, but can type on computers (Starcic, 2010) which makes the reading of student work easier.

Technology can also be used by teachers in the classroom to make learning more interactive, interesting, and enjoyable for students through the use of several new media facilities such as PowerPoint presentations, animations, and online videos. These forms of collaborative activities, which reinforce active participation in the learning process, are also considered quite vital for leading teachers to practice more student-centered teaching approach. In addition to abovementioned benefits, the research conducted by Mundy (2011) in the United States of America with the 700 teachers in seven local schools revealed the fact that, teachers who use the interactive electronic white boards for 120 minutes or more per day had students who showed better scores compared to the ones who use electronic white boards less. All these examples and many others lead us to the conclusion that technology integration to language education stands as inevitable and quite essential for educational purposes in educational life of 21<sup>st</sup> century.

## **2.1. TECHNOLOGY READINESS AND ITS RELATION TO LANGUAGE EDUCATION**

Parasuraman (2000:38) defines the term ‘technology readiness’ as “a construct which refers to people’s propensity to embrace use new technologies to accomplish goals in home life and work” and as an overall state of mind resulting from a gestalt of mental enablers and inhibitors that collectively determine a person’s tendency to use new technologies. These concepts are mostly handled in the field of education especially related to the discussions of the relations between teacher readiness and use of technology and of the technological readiness of the infrastructure through which the education will take place.

In a broader term, technology readiness can be defined as the degree to which a community is prepared to participate in the technology-enriched environment and it is appraised by assessing a community’s relative advancement in the areas that are most

critical for technology adoption and the most important applications of the technology. In terms of education, technology readiness defined regarding the availability of ICT infrastructure, the accessibility of ICT as well as ICT use by all of the stakeholders within the field of education. Within the course of time, especially soon after the rapid invasion of internet based technologies and e-learning into educational world the technology readiness concept become e-readiness which is a more umbrella term that covers differing dimensions of online and technology based instruction. In general, e-readiness can be defined as the preparedness of a nation or community to participate in the information and knowledge society (CID; 2000; Bridges org. 2001). It is often measured by judging the relative advancement of the most important areas for the adoption of the ICTs and their applications (Dutta and Jain; 2005).

According to EIU (2006) 2006 e-readiness report, e-readiness is not simply a matter of the number of computers, broadband connections and mobile phones in the country (although these naturally form a core component of the rankings); it also depends on such things as citizens' ability to utilize technology skillfully, the transparency of the business and legal systems, and the extent to which governments encourage the use of technologies.

In terms of education, Machado (2007) defines e-readiness as the ability of educational institutions and the capacity of institutional stakeholders (managers, key ICT persons, teachers and students) to generate (e-) learning opportunities by facilitating computer-based technologies – in short, how e-ready an educational setting is to benefit from educational technology (or e-learning)

In another definition, Dada (2006) describe the e-readiness as the measure of the degree to which a community may be eager and prepared to make benefit of using ICT. The literature on e-readiness reveals the fact that, according to Ilgaz and Gülbahar (2015), individual properties, ICT competencies and motivation, together with access to technology, are identified as key factors for e-readiness in addition various other



dynamics. Thus, based on the existing literature, factors that should be considered for e-readiness are “individual properties”, “ICT competencies”, access to technology”, “motivation and attitude” of teachers and “factors that affects success” in implementation of ICT in the teaching environments.

## **2.2. E-READINESS OF TEACHERS FOR TECHNOLOGY INTEGRATION**

The profile of the today’s student has changed from that of a traditional student and they generally defined as Generation Y students. According to Yan (2006) Generation Y refers to people born between 1980 and 2000 in the United States of America; based on the advancement in technology integration, the Generation Y students in Turkish context can be regarded as born from 2000 onwards. Generation Y students were born into technology and often know more about the digital world than their teachers and parents. Generally these students have relatively unfettered access to information technology and social media platforms. According to Kezi Communications (2009:1) Generation Y was born in an era of technological and sociological change. This generation prefers learning to be fun, relaxed and interactive and therefore a traditional teaching and learning approach does not appeal to them (Gleeson 2003:4; Price 2009:3). The students belonging to Generation Y portray particular characteristics, which influence their interaction with others and their environment, how they connect and learn, as well as the assortment of technologies they use to do so (Halse & Mallinson, 2008:1). The most salient characteristic of this generation is its comfort with technology (Reilly, 2012).

Various scholars have discussed the nature of the new generation students and the problems that they bring to their learning environments. As Skiba (2008), claims the “old way” of schooling, namely the teacher as “sage on the stage,” is not effective with these new generation students. Experienced teachers who have been around a while know that the values today’s students hold are not congruent with traditional course

content and methods. Teachers who merely follow the textbook are likely to be perceived as “old hat.” Therefore, teacher effectiveness depends on the ability to adapt instruction to the needs of today’s learners (Reilly, 2012). Moreover, Sandars and Morrison (2007;87) claim that the main barrier to implementing such teaching is likely to be not the learners but the educators; there seems reluctance among many educators to move away from traditional teaching methods ... a radical departure from a system that has worked well for a very long time.

As Meadows and Leask (2002) claim the extent of the impact of communication technologies depends on teachers changing their practice in classrooms. Some teachers are of course resistant to change, but one can sympathize with them since so much of the change in education can be regarded as retrograde in the wider context. Similarly, Goldstein (1997) claims, the studies on the issue revealed that the majority of teachers use ICT only occasionally and often under a sense of obligation rather than conviction of its value as an educational medium.

Studies on e-readiness of language teachers have differing focuses. To begin with, some researchers dwell more on the features of teachers. As Dorathy and Mahalakshmi (2014) claimed, technology integration depends on existence of knowledgeable and enthusiastic teachers who are motivated and prepared to put technology to work for well-being of their students.

In addition to personal characteristics of teachers, there exist a quite considerable literature regarding the relationship between e-readiness of teacher and their level of teaching experience. Singh and Chan’s (2014) study revealed that the attitudes of teachers on use of educational technology vary with their years of experience and level of knowledge on technology. For the research, the data gathered from novice teachers and pre-service teachers are mostly analysed and find out that level of teaching experience has a significant relation with technology readiness of teachers. On the issue, Iromuanya (2012) conducted a research on novice teachers’ preparedness to

integrate educational technology into the classroom in the United States of America. The participants of the study were composed of in-service teachers who had less than 4-year experience working in school setting. The analysis of the data gathered through qualitative and quantitative instruments revealed the need of college preparation institutions and school districts for organizing proper trainings and following ongoing professional developments in the field of educational technology use in the classroom in order to fill the gap of inexperience teachers' readiness on educational technology.

Moreover, among the factor influencing e-readiness, it is realized that technology preparation positively affects initiation and adoption of technology in the classroom, but negatively impacts integration as it drives future teachers to chase the latest technologies without learning how to use existing ones effectively. On the issue, Cavin's (2007) study illustrates development of technological pedagogical content knowledge (TPCK) in preservice teachers as they participated in microteaching lesson study. Participants of the study were six pre-service teachers enrolled in the required technology course for mathematics and science teacher education at a small rural college. Findings of the study indicated that the pre-service teachers developed an awareness of the nuances of teaching with technology in a student-centered learning environment, recognizing that traditional "methods" of teaching such as sequencing, pacing and written directions took special characteristics when technology was involved. Factors seemed to have an influence on the preservice teachers' decisions related to the use of a technological tool included participation as students in modeled lessons, comfort level, and the pre-service teachers' beliefs related to learning and teaching with technology. However, Swan's (2009) research indicate the fact that experienced teachers' self-assessments of integrating technology revealed that they lacked the readiness to change their beliefs of how educational technologies can improve the way they teach.

In addition to novice and pre-service teachers, researchs on e-readiness of inservice teachers are also a substantial part of the literature. A study conducted by US

Department of Education (Gray, Thomas, and Lewis; 2010) found that inservice teachers in America still report a lack of participation for the technology improvements they are expected to implement in their classrooms and they feel largely unqualified to integrate technology into their teaching. This problem is also shared by language teachers in other parts of the world exemplified in Singh and Chan (2014)'s research. In their study conducted by 50 Malaysian secondary school in-service teachers, they investigated teachers' level of knowledge, their attitude towards the use of ICT in teaching and learning, the training received and obstacles faced during their endeavour. The data revealed the fact that participants demonstrated a positive attitude towards using technology; the majority used educational technology for as a tool for instruction, which influence the way students learn in classrooms. It is concluded from their study that both teachers' attitudes and their knowledge on how to use educational technologies in teaching and learning environment has an important role on using them effectively.

Although pre-service, novice or in-service teachers have quite remarkable motivation and willingness towards technology integration to language education, teacher's competence and proficiency in using education technology become a controversial issue due to various dynamics such as educational competences and personal skills of teachers influencing e-readiness. Reaching expected level of e-readiness of teachers appears as an outcome of a blend of necessary elements, which enable new system design such as e-teaching. As Bjekić and Zlatić (2006) states, the skills for e-teaching include three fundamental professional competences namely; educational competencies, program competencies or course content competencies and communication competencies. Educational competencies indicates some basic educational roles including system of knowledge, skills, abilities and motivation dispositions to perform the educational activities. The program competencies or course content competencies can be regarded as system of knowledge and skills from the course content and developed abilities to teach the student about the knowledge and skills; and communication competencies specifies system of the knowledge,

skills, abilities, and motivation dispositions to realize the goals of communication and teaching social interaction (Bjekić and Zlatic, 2006).

Abovementioned three-dimensional model for teaching competence for e-readiness refutes single-variable models in micro level analysis, which only deal with willingness and motivation of teachers for e-readiness and by ignoring the role of personal skills, educational background of teachers and potential of educational system for technology integration. For instance, Karpati, Torok, and Szirmai's (2008) study on the role personal skills of teachers on e-readiness highlights that there is a strong correlation between certain characteristics of the self and success in ICT use. This suggests that integration of digital teaching aids and methods may be affected by targeting both the professional and personal self of teachers through a targeted teaching environment and course content. Thus, personal characteristics also have an affect upon the effective integration and use of technology in language classrooms and therefore, such initiations should be designed to suit not only the initial level of technological skills but also the mindset of teachers.

Besides the role personal skills and the level of teaching experience, literature illustrates a significant relation between teachers' educational backgrounds including level of education, field of expertise (BA, MA, Phd. or ELT, Literature and Linguistics, Translation Studies) and their level of e-readiness. On the issue, Gömleksiz (2004) surveyed 150 English teachers working at 63 elementary schools in Elazığ in order to determine the attitudes and opinions of English teachers towards using education technology in their classes. The results of his study revealed statistically significant differences between two groups. While teachers graduated from English Language Departments appear to be at a better position in use of educational technology in classes, teachers who graduated from other fields have difficulty using educational technology. Additionally, he found out that although all teachers recognize the importance of using educational technology, participants in general are not so eager to use education technology in their classes since the schools where those teachers

employed do not have necessary and sufficient technological equipment and teachers do not get enough support from school administrations.

As illustrated above, e-readiness of teachers is a quite complex issue blended with various dynamics as personal competences and preferences, educational background, educational field, level of teaching experience and quality of teacher training on technology. Apart from teacher's readiness, e-readiness as an umbrella concept also closely connected with the e-readiness of teaching environment for technology integration.

### **2.3. E-READINESS OF TEACHING ENVIRONMENT FOR TECHNOLOGY INTEGRATION**

In general, the studies dealing with technology readiness and effective learning within the broad category of technology experience and information communication technology (ICT) implementation in educational contexts assumed that readiness to use technology predicates on technology access. However, problems experienced regarding e-readiness of teachers can also stem from lack of e-readiness of schools in providing necessary, proper and effective educational technology.

A study (Ali, 2010) conducted over EFL teachers and EFL students on the benefits of and barriers to technology-enhanced language learning in a university setting aims at unveiling the reasons of teachers and students who infrequently use technology for educational purposes in language education, and obstacles faced during this process. The findings of Ali's (2010) study revealed the fact that despite their positive attitudes towards technology integration in education teachers and students were infrequently incorporating technology into their education due to several barriers. Deficiency of technological instruments, financial problem and lack of electricity are challenges that

prevent teachers and students from integrating technology into language teaching and learning.

In addition to material conditions of the classes and schools, the literature also examines the complexity of various structural dynamics influencing the level of e-readiness. In her study which examines the role of information communication technology in education and how technology is integrated in the state teacher education institutions in the National Capital Region of the Philippines, Tan del Rosario (2007) looks into the integration of ICT in education through the lenses of infrastructure; curriculum and pedagogy; professional development and management and organization. The results of the study point out national education policies reflected in school policies which structure the plans for technology integration in education giving way to lack of funding for infrastructure and technology assisted educational materials, insufficient teacher training plans, and lack of motivation and competency of teachers for technological integration in education. The results of the study also carry the implication that modernization as a guiding principle mostly for the developing countries functions as a driving force in using ICTs as an indicator of adaptation. Following this trend, they become willing to technology integration in education by designing particular courses as training both for teachers and for students and modifying the curriculum in a way to foster more technology-friendly language teaching.

Besides the problems resulted from lack of infrastructure and national and local education policies, the relation between teachers' training, e-readiness of teachers and availability of educational technology in teaching environment emerges as a parameter, which should be considered in itself. It is clear that technology integration in education fulfilled, to a certain extent, through in-service training given to pre-service and novice teachers in line with their desire and competency to follow the latest technological developments. However, as Attwell (2007) claims, there is little or no connection between pre-service teacher personal use of technology and their professional use of

technology. Pre-service and novice teachers are known for their own personal negative reflections on adding technology into education, for varying reasons such as inadequate time to plan for technology-integrated lessons, lack of access to computers and software, and insufficient technical and administrative supports for technology integration. Similarly, based on personal experience as a member of project unit of the provincial directorate of national education it can be claimed that although most teachers have participated in some type of professional development in form of in-service training many of them do not feel competent or comfortable integrating technology effectively into their classrooms. Moreover, preparation programs have difficulty with maintaining a level of authenticity in technology experiences for pre-service teachers (Barab, Squire, & Dueber, 2000) due to the technological skill levels of cooperating teachers and the availability of technology tools at each school (Iverson, Lewis, & Talbot, 2008). Therefore, there emerges the necessity that, according to Vannatta and Beyerbach (2000), technology experiences formed during in-service training need to make organic connections between current technology applications and their uses in a classroom for educational purposes. Since the purpose of technology experiences at the in-service level includes instructions which teachers perform regularly, engagement of students in the classroom, reflection and professional developmental (Iverson, Lewis, & Talbot, 2008), absence of these factors reveals why many classroom computers are not being fully utilized and computer labs are still being used mainly for practices (Shoffner, 2009).

The abovementioned components of e-readiness have been witnessed since 2010 in Turkey as a significant part of Turkey's ideal to become an information society in line "European Union 2020 Strategy" which mainly aims at "creating values from information". For this purpose, Turkey's 9<sup>th</sup> Development Plan was established on the principle of efficient use of information and communication technologies in whole system including the sphere of education.



## 2.4. TECHNOLOGY INTEGRATION IN EDUCATION IN TURKEY

The first signals of the technology transformation in the field of education was seen in the the 2010-2014 Strategic Plan of the MoNE in the vision of information technologies (MEB, 2009: 36). This strategic plan refers to “integrating advance technologies in educational system by supporting innovations, constantly developing through assessment and evaluation, providing student-centered and project-based education by using information technologies”. In line with this vision, various objectives were set some of which include procuring information and communication technology infrastructure, software and the Internet for each school, making teachers, students, administrators ready for using information technologies by providing necessary in-service training, and making some policy changes to prevent digital divide by enabling all citizens to use information technologies.

Among these policy changes, FATİH Project in Education, which is defined as “the Movement Targeting Increase of Opportunities and Betterment of Technology” (*Fırsatları Artırma ve Teknolojiyi İyileştirme Hareketi*) has been the most extensive and effective project of technology integration in education conducted ever in Turkey. The FATİH project aims, distinctively, to facilitate the “development of human resources equipped with essential technological skills by means of efficient use of information technology hardware and applications in education and diversification and improvement of education materials” (Prime Ministry Report, 2012: 1).

Within the scope of FATİH project, various educational technologies, specifically, laptops, projectors and internet infrastructure has been planned to be supplied for 620.000 classrooms of all schools providing education in pre-school, primary and secondary level for the purpose of providing equality of opportunity in education and bettering the technology in schools. Additionally, by means of FATİH project in service training for teachers was planned to be given for providing efficient use of information technology established in classrooms during education process. Moreover,

in order to make education programs accord with information technology-assisted education, a plan was made for preparation of educational e-contents. As Tolu (2014: 832) claims, FATİH project “promises to fully integrate ICT into education in order to solve many educational issues, such as establishing entrepreneurialism in education, improving ICT sectors, exporting educational services to other nations for profit, and, ultimately, meeting the overarching purpose of Turkey becoming a competitive nation”.

As indicated in the official page of the project, FATİH project in education was initiated with the purpose of providing equal opportunities in education and improving the technology in schools in a way that informatics technology tools to engage more senses in the educational process”. In accordance with that purpose, it is constructed on 5 main principles:

- **Accessibility:** Offering service any time, anywhere and independent from tools.
- **Productivity:** Providing target oriented and more productive development fields.
- **Equality (equality of opportunity):** Enabling all shareholders access to the best service.
- **Measurability:** Providing accurate measurement of process and results and giving feedback accordingly for the development to be assessed better.
- **Quality:** Enhancing the quality of whole education in a measurable way.

In light of above-mentioned principles, it is strictly emphasized that FATİH project aims not only to integrate technology into education but also but also to extend to a scope that will transform the domestic economy.

The basic objectives of this project include;

- increasing the value-added domestic production,
- conducting research and development activities for new technologies and products,
- introducing information technologies including hardware, software, network infrastructure and internet access to all schools and classrooms,

- providing e-content and e-books to students and teachers,
- energising domestic productions with tablets and creating work fields to domestic companies,
- developing young entrepreneurship spirit,
- developing 21<sup>st</sup> century citizenship skills which make students active agents having equal opportunities in education such as effective communication, analytical thinking, problem solving, co-working and cooperation.

The components of the FATİH project, which are described briefly below was planned to be completed in five years (2010-2015) despite the time extension given to the project.

With the purpose of “Providing equipment and a software substructure” each school in the project was provided multifunctional photocopiers; document cameras; interactive whiteboards and wired Internet connections for each class; tablets for teachers and students; and at least one distance in-service training centre per city, including video-conferencing equipment and wide-band data transmission.

The aim of act “Providing educational e-content and the management of content” is to establish a commission for each subject area, to update teachers’ guides and books, and to identify new pedagogical methods and instructional samples. In line with this act, new terminologies such as ‘e-content’ and ‘z-book’also took its place in Turkish education system.

Similarly, the aim of act “The effective use of ICT in teaching programmes” is to establish a commission to approve new curricula. The role of this commission is to prepare e-contents, z-books and manuals all modules for each course by the help of relevant institutions on behalf of the Ministry of National Education. The objective is to provide learning materials regardless of time and space; ensure the retention of learning with the use of different multiple learning materials; improve the quality of

the branches of ICT; provide equal opportunities for students from low and high socio-economic backgrounds; and establish learning environments outside of schools.

The “In-service teacher training” act of the FATİH project aims to provide face-to-face, distance and blended in-service training in order to introduce teachers to the use of ICT; integrate ICT in the teaching of their subjects; develop their own contents; and monitor and evaluate their processes, including providing certification so as to develop their careers and motivation. Subsequently, this will encourage and drive the effective and efficient use of ICT in teaching courses for successful teachers.

The final component of the project which is “Conscious, reliable, manageable and measurable ICT usage” aims to establish a traceable network infrastructure, including centrally managed and controlled Internet access, network layer firewalls and directives with regard to ICT usage.

In accordance with the components and their inherent objectives, various forms of information technologies delivered to schools, classrooms, teachers and students throughout the project. As one of these educational technologies, interactive or smart boards have been integrated into education due to its substantial advantages compared to white boards such as providing high quality image compared to projectors. In addition to interactive boards, both students and teachers all around the Turkey delivered roughly 1.437.800 tablets since 2011.

Moreover, FATİH Project in Education provides many services under the heading of infrastructure and access including building a system control room in each school, installing a secure gateway device in each school, providing uninterruptable power source for network devices, enabling access to offline content from classrooms, providing structural cable works in schools. As a supplement to infrastructure and access, the content services within the FATİH Project includes an Educational Informatics Network (<http://www.eba.gov.tr>) as “an online and social education platform managed by the General Directorate of the Innovation and Education

Technologies” having objectives of “offering different, enriched and educational content. This Network generalising informatics culture so that it can be used in education; meeting the needs related to content; enabling users to share information with the social network structure; covering student with different learning styles; enabling teachers to direct education by uniting all of them finding a common ground”. The last and probably the most significant component of the project refers to teacher training whose internal structure will be discussed in detail in Chapter 4 in relation to the issue of e-readiness of teachers.

Despite abovementioned components and comprehensive design of FATİH Project in Education, there has emerged quite considerable level of dissatisfaction and disappointment regarding the project’s success. For instance, a newspaper article titled as “Only 8% of FATİH Project has been completed despite 7 months for project finalization” presents the fact that the objectives of the Project has only been accomplished to 10% in each of 10 components. Problems regarding the project can easily be displayed through e-readiness of teachers for technology integration in Turkish context.

Another initiative in technology integration into teaching in the Turkish National education system is DYNED (Dynamic Education). Dyned is an educational system carrying the language learning on computers and providing individuals to learn English themselves. As Watt and Foscolos, (1998) claimed, DynED is a useful language learning software that can gain students’ attention. The activities in the DynED are build on one another in a gradual manner, and as students move through each level there is an increasing vocabulary. Additionally, by means of shuffler feature of program, new language forms gradually introduced to the learners as their level increases. They exposed to comprehensible activities that balance communicative and linguistic needs as well. However, since it tends to be quite formulaic in the patterning of its instructional sequences, from unit to unit, users of the software program should regard some shortcomings of it and any negative side effects should be planned

beforehand (Watt & Foscolos, 1998). Since DynED based on a courseware program, it needs to be installed on a network server (Fichou, 2003). In general, in DynED program, the emphasis is placed on building the receptive skill, specifically, listening and the productive skill of speaking that are necessary for basic communication in English. Lessons focus on the subject matter that is relevant to students' lives at the college level. Topics vary from family and daily routine tasks to environmental issues. There is a strong foundation in grammar and vocabulary as students are introduced to the language needed for effective communication (Marimuthu & Soon, 2005).

## **2.5. RECENT STUDIES IN LINE WITH E-READINESS OF TEACHERS FOR TECHNOLOGICAL INTEGRATION**

E-readiness is a quite comprehensive concept, which is not only confined to the field of education but also it includes economic and political sphere of life. Therefore, countries are analysed by many agencies and authorities in terms of their level of e-readiness considering their performance in several sectors. As one of these authorities 'Economic Intelligence Unit' (EIU), the business information arm of The Economist Group composed of 650 analysts assessing and forecasting political, economic and business conditions in 200 countries, approaches e-readiness as a measure of the quality of a country's ICT infrastructure and the ability of its consumers, businesses and governments to use ICT to their benefit. In its 2009 report, Turkey ranked 43<sup>th</sup> country among 70 countries with the score of 5.34 (of 10) in e-readiness rankings (EIU, 2009) which lead us to expect that e-readiness in education will reflect the general country trend on the issue.

Turkish researchers from various education fields have recently interested in e-readiness of teachers and its reflection on educational technology use in classroom. However, it is possible to claim that e-readiness or technological readiness is a quite new and untouched branch within the field of education in Turkish context and

followingly it requires intense effort and enthusiasm to unveil the complex nature of the phenomenon in line with the peculiar character of Turkish national education policies.

As one of the rare studies, which can be regarded as focusing on e-readiness on the field of education in Turkey, Kabadayı (2006) studied the beliefs and attitudes of preschool teachers working in Konya, Turkey towards the use of educational technology in teaching and learning process. The study was implemented through 'attitude scale' in order to understand 260 preschool teachers' 'views on the use of educational technology', 'use of activities in preschool classes' and 'use of technology in preschool classes' aspects. Kabadayı's (2006) study revealed that teachers are not motivated to integrate technology into education due to many obstacles faced in during the use of educational technology. Nevertheless, the researcher also found that pre-service and their cooperating teachers do not regard using educational technology as a waste of time. On the contrary, according to the findings of the study, participants believe that educational technology has quite significant role in enhancing students' success and learning. However, despite their positive approach, the pre-service and their cooperating teachers are likely to use mostly traditional teaching devices rather than contemporary educational technology. The findings of his study lead us to conclude that both pre-service and their cooperating teachers have to be educated and equipped with necessary technological know-how through in-service trainings. The reasearcher's suggestions give a clue about low of level of teachers' e-readiness for technology integration.

Another study on the issue, which was conducted by Summak, Bağlıbel, and Samancıoğlu (2010), aimed to assess the technology readiness of the primary school teachers in Turkey. Within the scope of their study, the demographics of the teachers were examined to determine the effect of some personal features of the participants on their technology readiness level. For this purpose, "The Technology Readiness Index" developed by Parasuraman (2000) was adopted to measure technology readiness of 207

teachers working in 11 different schools in Gaziantep. The research findings reveal the fact that although the teachers' overall technology readiness level was regarded as moderate, there were no significant differences in terms of technology readiness across age and subject areas of the teachers. However, researchers identified a significant relation between technology readiness and gender. Thus, male teachers demonstrated a higher overall technology readiness score than female teachers. Nevertheless, despite this difference on the level of e-readiness based on gender, their study revealed the fact that teachers' technology readiness level was not as high as expected which might result in emergence of some problems in the technology integration process.

Apart from the above-mentioned studies, which mostly focus on the level of e-readiness of teachers who actively engage in education process, there is also a field of interest, which deals with the peculiarities of the teacher training aiming at meeting the necessities of e-readiness. Following this line of interest, Kıldan, İbret, Pektaş, Aydınöz, Incikabı, and Reçepoğlu (2013) conducted a study on pre-service teachers to demonstrate the approach of the pre-service teachers to the issue of technology and their technological competences obtained throughout university education. The study examines teacher trainees' conceptualization of 'the teacher of the 21<sup>st</sup> century' through the features such as inquisitive and open-minded, equipped with adequate knowledge and skills, have good human relations and communication skills and competent in terms of technology use. However, the study shows that pre-service teacher experience major difficulties in becoming 'the teacher of the 21<sup>st</sup> century' due to various problems in teacher training process in Turkey one of which refers to lack of technological equipment affecting the level of teachers' e-readiness.

In light of above-mentioned elements determining e-readiness of teachers for technology integration in education as the research topic of this study, the data required for generating answers to a number of research questions introduced in Chapter 1 will



be obtained through implementation a specific methodological approach presented in the following chapter.

## **CHAPTER 3**

### **METHODOLOGY**

The research methodology that was adopted for the present study is a mixed method research design. Since central premise of the present study is gathering and analyzing both quantitative and qualitative data in order to depict the case in a descriptive way, it is expected that the mixed method provides a better understanding of research problems than either approach alone. In order to analyze the technology readiness of the teachers, the quantitative data required for the research gathered through an online survey, whereas, the qualitative data of the present study were gathered through focus group interviews with sample of the participant. Additionally, in line with the feature of the research topic, which deals with the readiness of teachers for the recent technological developments, online surveys whose peculiar characteristics discussed in the data gathering instruments section have been the basic form of research data of the present study.

#### **3.1. STUDY DESIGN**

Since the aim of the present study is to figure out the e-readiness of teachers on technology integration into their courses, both quantitative and qualitative information collected through various data gathering instruments. Thus, the present study followed a mixed method research methodology in general. In terms of research design, “explanatory sequential design” was adopted. The purpose of this design is to use qualitative approach to explain quantitative results (significant, nonsignificant, outliers or surprising results) or to guide to form groups based on quantitative results (Creswell

and Plano Clark, 2011). Hence, the qualitative data of the present study is collected and analyzed first. Based on the findings of the qualitative data, the second phase of the study was conducted. In the second phase, the quantitative data were collected through focus group interviews with a group of the participants and the quantitative findings were analyzed in order to scrutinize the quantitative findings. Finally, both findings of quantitative and qualitative data presented descriptively through the research questions.

### **3.2. PARTICIPANTS**

The main objective of selecting the participants of the present study is to obtain a representative picture about the population, without studying the entire population. Since it would be difficult to reach all of the English language teachers in Turkey, the *nonprobability sampling* method was used in the present study. One of the most common types of nonprobability sample is called a *convenience* sample – not because such samples are necessarily easy to recruit, but because the researcher uses whatever individuals are available rather than selecting from the entire population. Thus, participants of the present study were selected on the basis of their availability. Additionally, purposive Sampling is also used in the present study while gathering the qualitative data. With the purpose of in depth analysis of the quantitative findings, all head teachers from districts of Antalya were asked to participate to the focus group interviews.

A total of 1489 in-service English language teachers working in primary, secondary and high schools in Antalya form the participants of the present study. Participants' contact information was obtained from the school administrations and all of those teachers were informed about the the study. Then, the data-gathering instrument sent through dissemination of the hyperlink, by which participants could reach and respond the items in the questionnaire. The participinats were asked to respond the

questionnaire between the end of the May 2016 and 30<sup>th</sup> of June 2016 which is the most convenient time, which was end of the term seminar period for teachers. All of the English language teachers (1489) working different districts of Antalya were sent an e-mail, which inform them about the study and a link of online questionnaire. A total of 282 out of 1420 in-service EFL teachers accepted to participate in the study on a volunteer basis. However, 246 of the questionnaires (87 %) were regarded as valid.

The demographic profile of the participants of the present study are presented in Table 1.

**Table 1:** *Demographic Profile of the Participants*

<b>Genders</b>	<b>Frequency</b>	<b>Percent (%)</b>
Female	185	75.2
Male	61	24.8
<b>Level of Experience</b>		
≤ 4 years	21	8.7
5-8 years	32	13.2
9-12 years	75	31.0
13-16 years	67	27.7
≥ 17 years	47	19.4
<b>Level of Education</b>		
Bachelor's Degree (BA)	204	82.9
Master's Degree (MA)	28	11.4
Doctoral Degree (PhD)	14	5.7
<b>Subject Areas</b>		
ELT	204	82.9
Literature and Linguistics	39	15.9
Translation Studies	3	1.2

As it is seen in Table 1, while 75.2 % (f=185) of the subjects were male, 24.8 % (f=61) of the participants were composed of females. In terms of the level of experience, 8.7 % (f=21) of the participants have under 4 years of experience, 13.2 % (f=32) have between 5-8 years of experience, 31 % (f=75) have between 9-12 years of experience, 27.7 % (f=67) has between 13-16 years of experience and 19.4 % (f=47) has 17 years

and above experience. As the data revealed a great deal of the participants have over ten years of experience in English language teaching.

In terms of educational background of the participants, it is found that most of the teachers (82.9% / f=204) have bachelor's degree in English Language Teacher Education Programs. On the other hand it is also found that while 39 (15,9 %) of 246 are graduates of Literature and Linguistics Programs, only 3 (1,2 %) of the participants are graduates of Translation Studies. The demographic data of the participants revealed that great majority (82,9 %) of the participants were graduated from teacher education programs. The further analysis of educational background of participants also revealed that 11.4 % of participants have MA degree and 5.7 % of them have Doctoral Degrees not only ELT but also in other educational fields.

### **3.3 DATA GATHERING INSTRUMENT**

Since the present study adopted a mixed research design, the qualitative and quantitative data were gathered separately. Consequently, the present study employed two main data gathering instruments for each data type. The quantitative data, which serve to answer the main research questions of the present study gathered through an online questionnaire, namely "Technology (e)-Readiness Questionnaire for Teachers" which was developed by the researcher. In the light of the theoretical introduction on research methodology adopted in this research, the data required for this study were gathered through online survey applied via a particular Web survey host namely, [www.docs.google.com](http://www.docs.google.com).

The first data-gathering instrument namely "Technology (e)-Readiness Questionnaire for Teachers" consists of two sections as demographic data and 22 items that inquire the technology readiness of participants. The first part, which inquires demographic information of the participants has 9 items which highlights participants' technology

use preferences and demographic information. This section of the questionnaire intends to be used to interpret the correlation between technology use readiness and other personal variables. The second part includes 22 items, which inquire technology readiness of participants on a five point likert scale (Strongly Disagree to Strongly Agree). The purpose of this section is to figure out the profile of technology use readiness of EFL teachers.

In the development process of the first data-gathering instrument, an item pool -which was roughly 200 items- were defined and developed in line with similar questionnaires used for similar studies in the literature. Among the items in the pool, the ones, which serve for the similar purposes, were eliminated after debating on them with an expert. Concerning the main purpose of the present study as well as regarding the expert opinions, a total of 38-itemed questionnaire was developed and used as a final version of data gathering instrument.

The final version of the questionnaire, which was in English was designed and piloted before commencement of actual research procedure. The questionnaire items which was piloted were conducted a factor analysis in order to examine its validity and reliability as well as investigating variable relationships and patterns. As a result of piloting process, the draft questionnaire composed of 38 items was remodified since some of the questions did not meet the criteria of validity and reliability in the results of factor analysis. While a number of the questions in the draft version were completely removed from the questionnaire, others were subjected to substantive transformation in terms of both form and content. Therefore, the final version of the questionnaire implemented in the research includes 31 items, which grasp both demographic information of the participants and provide an indepth picture of e-readiness of the English language teachers. The types of items at issue refer to dichotomous questions, dropdown questions and 5 points likert questions (Appendix 1).

The second data-gathering instrument, which is used for qualitative data, is two focus group interviews that held with the head English teachers from each district province of Antyalya. Two intact interview sessions with 19 head English teachers from each district province were held after the qualitative data gathering process ended. The interviews transcribed and analysed through content analysis technique. The content analysis of the qualitative data were used to further the findings of the quantitative data. The findings obtained through second data-gathering instrument were interpreted descriptively and relevant extracts were used to foster findings.

### **3.3.1. VALIDITY AND RELIABILITY ANALYSIS**

Within the scope of validity and reliability purposes, the item analysis of the final version namely “Technology (e)-Readiness Questionnaire for Teachers” is computed with the aim of understanding if the items within the whole of data gathering instrument or its sub-scales exist significantly in the whole or its sub-scales. It is believed that factor analysis is a means by which the regularity and order in phenomena can be determined. It refers to a multivariate analysis technique, which explains various hard to be interpreted relations and which groups of the items have correlation among under structurally meaningful and relatively independent factors. In other words, factor analysis aims at reaching few definable meaningful factors from a number of variables.

In factor analysis, the scree plot is a critical value, which determines if an item will be placed in a sub-dimension and if it reveals the relation of the item with the factor at issue. If a certain group of items stands under a factor with a high scree plot, these items interpreted as the items defining/measuring the related factor. In general, even though it is expected scree plot of an item to be higher than 0.45, the reduction of this value to 0.30 regarded as acceptable. Although the literature has different techniques applied for determining factor structures, Principal Component Analysis stands as the most frequently used method (Zeller and Karmines, 1978; Kleinbaum, Kupper and Muller,

1987). In order to identify the scale's factor structure, Varimax with Kaiser Normalization is utilized for enabling easier interpretation of the determined factors. Interpretability of the factor analysis is determined by the results of KMO and Bartlett Tests.

In order to test the construct validity of "Technology (e)-Readiness Questionnaire for Teachers", the draft version of the scale piloted by 121 in service EFL teachers who were not within the scope of actual study. Data gathered for the scale's construct validity is tested and the results (Kaiser-Meyer- Oklin=.67 ve Bartlett's (p<.0l) revealed the fact that this scale is suitable for factor analysis.

**Table 2:** *Results of KMO and Bartlett Test*

Kaiser-Meyer-Olkin	Sample Adequacy	,675
Barlett's Test of Sphericity	Chi-Square Value	1102,490
	S. Rate	435
	P	,000

The fundamental criteria considered during evaluation of the results of factor analysis refers to factor loads, which can be interpreted as correlations between variables and factors. As illustrated in Table 3, values of each item in the questionnaire are higher than 0.4, which prove the fact that each question within the scale have high quality.

**Table 3:** Communalities

	Initial	Extraction
Q1	1,000	,743
Q2	1,000	,599
Q3	1,000	,643
Q4	1,000	,730
Q5	1,000	,653
Q6	1,000	,637
Q7	1,000	,743
Q8	1,000	,690



Q9	1,000	,716
Q10	1,000	,571
Q11	1,000	,839
Q12	1,000	,591
Q13	1,000	,688
Q14	1,000	,765
Q15	1,000	,698
Q16	1,000	,684
Q17	1,000	,587
Q18	1,000	,802
Q19	1,000	,689
Q20	1,000	,757
Q21	1,000	,742
Q22	1,000	,790
Q23	1,000	,587
Q24	1,000	,625
Q25	1,000	,776
Q26	1,000	,734
Q27	1,000	,735
Q28	1,000	,629
Q29	1,000	,622
Q30	1,000	,774

Factor analysis which run with 31 items and the result of the analysis reveals that the scale was constructed on 3 factors whose eigenvalues are higher than 2.0. Moreover, the analysis computed through Varimax with Kaiser Normalization Technique illustrates the fact that each item gives high value only on one factor.

**Table 4:** Factor Analysis Results of the Inventory

Factor	Initial Eigenvalues			Total Scree Plots		
	Total	Explained Variance%	Cumulative %	Total	Explained Variance%	Cumulative %
1	6,812	22,707	22,707	6,812	22,707	22,707
2	3,406	11,355	34,062	3,406	11,355	34,062
3	2,207	7,358	41,420	2,207	7,358	41,420
4	1,777	5,923	47,343	1,777	5,923	47,343
5	1,551	5,170	52,513	1,551	5,170	52,513

6	1,412	4,708	57,220	1,412	4,708	61,533
7	1,294	4,313	61,533	1,294	4,313	65,756
8	1,267	4,223	65,756	1,267	4,223	69,468
9	1,114	3,712	69,468	1,114	3,712	
10	,937	3,122	72,591			

As a result of the factor analysis, 8 items whose factor scree plots were below 0.30 were removed from the questionnaire and the procedure was repeated. Following this phase, reliability analysis for the revised factors was completed.

In order to test the reliability of the questionnaire, Cronbach Alpha value calculated over each factor group and the findings are summarized in Table 4.

**Table 5:** Sub-dimensions determined as a result of factor analysis and their reliability coefficients

Factor	Cronbach Alpha	Guttman	Sperman Brown
1.	.65	.64	.84
2.	.71	.68	.84
3.	.62	.63	.83
TOTAL	.66	.65	.84

As it is seen in Table 4, Cronbach Alpha values resulting from internal consistency coefficients analysis of the scale change between  $\alpha=.71$  ile  $\alpha=.62$ , while Guttman values are between  $G=.68$  and  $G=.63$ ; and Spearman Brown values are between  $S=.84$  and  $S=.83$ . In light of this comprehensive analysis, it is clear that the questionnaire utilized in this study is a valid and reliable instrument.

### 3.4. DATA GATHERING AND ANALYSIS

The data gathered through the first instrument is analysed by an attitude questionnaire conducted to 246 teachers who teach English as a foreign language in Antalya for the purpose of examining their attitudes towards technology use and the readiness for technology, integration to the language classrooms.

Explanatory factor analysis was made in order to reveal the factor structure of the implemented attitude scale. Premises, which need to be met by data set, had been tested before commencement of explanatory factor analysis.

Kaiser-Mayer-Olkin (KMO) test was conducted for testing the suitability of sample size to factorization. Since the analysis revealed that KMO value is .86, it is concluded that the sample size is 'excellently sufficient' for making factor analysis (Leech, Barrett and Morgan, 2005; Şencan, 2005; Tavşancıl, 2005). Further, average values were appointed to loss values in data set and other premises are continued testing. As a result of the analysis made for determining extreme values, the sample size was determined as 246 teachers. In order to test whether variables in data set respond to normality assumption, measures of central tendency, skewness and oblateness coefficient was calculated and histogram graphics was examined. Analysis revealed that values for the measures of central tendency were close to each other, namely  $X_{mod} = 70$ ,  $\bar{X} = 61.17$ ,  $X_{ave} = 63$ . When skewness and oblateness coefficient were examined, it was indicated that they were in between the tolerance limit of  $\pm 1$  (Kantz,1999) ( $K_y = -.369$ ,  $B = -.831$ ). Moreover, the histogram of distribution also presented results parallel to the abovementioned findings.

Apart from the findings and tests indicated above, another analysis was made for testing if linear distribution premises respond to data set and it was found a positive relation. Further, for the second time, Kaiser-Mayer-Olkin (KMO) test was conducted for testing the suitability of sample size to factorization and found out that KMO value is .86. Besides, in the analysis for results of Bartlett globosity test, the chi-square value

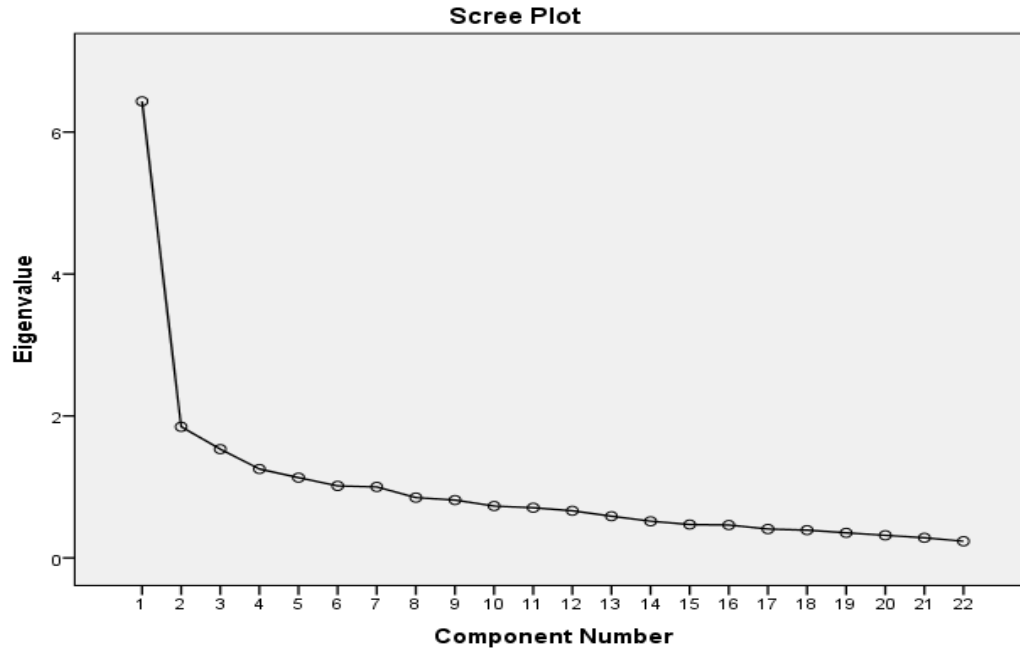
seemed noteworthy with the value of  $X^2_{231} = 1806.579$ ,  $p = .00$ . In line with these findings, it was accepted that the data were derived from the multivariate normal distribution.

Principal component analysis was used as a factorization method for presenting factor pattern of the scale. As a result of the analysis, it was seen that there were 7 components whose eigenvalue was above 1 for 22 items in the questionnaire. The contribution of these components to total variance is 64.59% as illustrated in Table 6. Scree test for the components is also presented in Figure 1.

**Table 6:** Total Variance

Questions	Eigenvalues			Eigenvalues Above the Level Of Acceptance		
	Total	Percent of Variance	Cumulative Percent	Total	Percent of Variance	Cumulative Percent
1	6,433	29,242	29,242	6,433	29,242	29,242
2	1,848	8,398	37,640	1,848	8,398	37,640
3	1,533	6,968	44,608	1,533	6,968	44,608
4	1,253	5,694	50,302	1,253	5,694	50,302
5	1,131	5,139	55,441	1,131	5,139	55,441
6	1,014	4,610	60,051	1,014	4,610	60,051
7	1,000	4,547	64,598	1,000	4,547	64,598
8	,849	3,859	68,458			
9	,815	3,704	72,162			
10	,730	3,319	75,481			
11	,707	3,212	78,692			
12	,664	3,016	81,709			
13	,587	2,670	84,378			
14	,516	2,347	86,725			
15	,470	2,137	88,862			
16	,463	2,103	90,965			
17	,407	1,850	92,815			
18	,391	1,779	94,593			
19	,354	1,607	96,200			
20	,318	1,447	97,647			
21	,283	1,287	98,934			
22	,234	1,066	100,000			

**Figure 1:** Scree Test depiction



As a result of analysis by the help of total variance table and scree test designed for these 7 components, it is seen that a single component makes significant contribution to total variance and the contribution remains both marginal and approximately the same after the first component. Therefore, the analysis was conducted for only one factor. In the result of the repeated analysis made for only one factor, the contribution of the one factor to total variance calculated as 29,24%.

In the explanatory factor analysis made for presenting factor pattern of the scale, the level of acceptance for factor's scree plot is found as .30. When skewness and scree plot of the items are examined in terms of their correspondence to the level of acceptance, it comes to light that scree plots of three questions (question 4, 9 and 20) remains below .30. Factor pattern obtained through excluding the questions of 4, 9 and 20 from the analysis, scree plots of factors and common factor variance are presented in the Table 6.

**Table 7:** Factor Scree Plots of the Attitude Scale regarding Technology Use and Common Factor Variance

Questions	Factor 1	Common Factor Variance
1	,502	0,25
2	,659	0,43
3	,700	0,49
5	,470	0,22
6	,672	0,45
7	,719	0,52
8	,673	0,45
10	,679	0,46
11	,730	0,53
12	,595	0,35
13	,556	0,31
14	,659	0,43
15	,584	0,34
16	,422	0,18
17	,432	0,19
18	,495	0,25
19	,379	0,14
21	,480	0,23
22	,435	0,19

When common factor variance presented in Table 6 is analysed, values regarding the questions of 16, 17, 19, and 22 are computed above .20. Factor scree plots reached as a result of a reanalysis after excluding these questions at issue from the analysis and common factor variance are shown in Table 8.

**Table 8:** Factor Scree Plots of the Attitude Scale regarding Technology Use and Common Factor Variance (Reanalysed)

Questions	Factor 1	Common Factor Variance
Q1	,525	,28
Q2	,692	,48
Q3	,735	,54
Q5	,481	,23
Q6	,717	,51
Q7	,736	,54
Q8	,672	,45

Q10	,700	,49
Q11	,743	,55
Q12	,551	,30
Q13	,549	,30
Q14	,656	,43
Q15	,540	,29
Q18	,496	,25
Q21	,461	,21

As illustrated in Table 7, factor scree plots change between the range of .46 and .74. When factor scree plots are examined except the values related to the questions of 1, 5, 15, 18 and 21, it is possible to qualify these scree plots from 'good' to 'excellent'. Scree plots of these 5 questions indicated above can be regarded as 'average' (Tabachnick and Fidel, 2001). Further, analysis of common factor variance of the scale composed of 15 questions, it is realized that variances are at and above the acceptance level which is .20.

Factor number contained first by 2/3 of the total variance related to the variables included in the analysis is assessed as the number of significant factor. The mentioned values are hard to reach in developing scale especially in social sciences. It can be regarded sufficient to reach 30% of the explained variance and more in one-factor patterns (Büyüköztürk, 2007; Tavşancıl, 2005). In addition to abovementioned values, the reliability coefficient of the scale in terms of innerconsistency is calculated as Cronbach Alpha .89.

## **CHAPTER 4**

### **FINDINGS AND DISCUSSION**

Integrating information and communication technologies in language education seems as a quite significant issue and priority of the National Education Program in Turkey. For this purpose, Ministry of National Education has allocated and spent considerable budget to support technological infrastructure for ICT integration into education. However, the question to what extend teachers, especially English language teachers, are ready for using those educational technologies in their actual teaching practice is not clear yet. Therefore, the main objective the present study focused on figuring out the EFL teachers' readiness levels for technology use (e-readiness) in their teaching environments. Thus, throughout this research, various dynamics and parameters are considered in order to unveil the e-readiness of teachers working in language education in line with the research questions presented in the introduction section. In the following part of this section, the findings will be presented in line with the research questions that we sought answers.

#### **4.1 FINDINGS IN RELATION TO DEMOGRAPHIC INFORMATION:**

Various studies in the literature revealed that personal features of teachers might be an effective factor in their use of technology in classrooms as well as on their readiness to use those equipments. Furthermore, the findings of those studies suggested that demographics of the participants might shed light on an effective interpretation of the data and give a clear picture about e-readiness of the EFL teachers. Concerning this fact participants' demographics such as gender, teaching experience, educational



background, use of ICT in their daily life and in their teaching environments were examined based on participants' self-reported data.

Through demographic questions, participants were asked about their access to several ICT devices, social media and the frequency of use on a daily basis in order to see their general use profile of technology. In this aspect participants were questioned the social media that they use and the time they spend in ICT devices. The analysis of related items are depicted in Table 9 and Table 10.

**Table 9:** Teachers' Access to Information and Communication Technology

<b>Percent</b>	<b>Frequency</b>	
Desktop Computer	108	43.9
Laptop Computer	184	74.8
Tablet Computer	151	61.4
Smart Phone	220	89.4
Smart Board	154	62.6

The findings illustrated in Table 9 lead us to a conclusion that teachers participating in the study have a quite remarkable level of access to the recent forms of information and communication technologies including educational technology such as smart boards as one of the major actors in addition to tablet computers introduced by Ministry of Education. Even though access to smart boards (62.6 %) and laptop computers (74.8 %), to some extent, is maintained independently of teachers' personal interest towards information and communication technology, the data regarding the use of remaining forms of new media technology gives us a significant clue about teachers' willingness and enthusiasm in adopting the new media environment in their everyday life practices. Moreover, such an inference is also reinforced mostly by the level of their use of smart phones (89.4%) and their existence on social media.

In terms of social media use for educational purposes by teachers, it is found that participants use and integrate technology in their teaching environment in profound way.

In a follow-up question within demographic data, participants asked whether they use the technology in their teaching environments. Gathered data for this specific question yielded that while 98.4 % of teachers use and integrate technology into education, only 1.6 % declare not to use educational technology.

Further analysis of the demographic data related to ICT use of teachers revealed that 74% of teachers indicate that they use various platforms within social media such as WhatsApp, Twitter, Facebook, Google + etc. to communicate with their students. This fact is also supported by the time teachers spend on these forms of technological device per day. While 20.3 % and 32.1 % of teachers spend 1-2 hours on laptop computers and tabloid computers, 23.6 % and 31.3 % of them spend 3-4 hours on smartphones and smart boards per day respectively. This picture demonstrates the fact that although teachers have, at least to a degree, get acquainted with the latest technological devices in line with the objectives of Ministry of Education. It is also found that teachers prefer to use smart phones as a major device of communication in their personal lives and to integrate mostly smart boards into education to a considerable level.

In order to see teachers' technology integration in education on weekly basis the demographic data was analysed and findings depicted in Table 10.

**Table 10:** Teachers' Technology Integration in Education on Weekly Basis

	<b>Frequency</b>	<b>Percent</b>
Never	2	0.8
≤ 1 hour	12	4.9
1-2 hour	60	24.4
3-4 hour	76	30.9
5-6 hour	53	21.5
7-8 hour	28	11.4
9-10 hour	10	4.1
≥10 hours	5	2.0

As it is seen in Table 10, most of the teachers (63,8 %) reported that they integrate educational technology in their classes between 3-8 hours on weekly basis and they actively use new media technology in their daily communication. The findings also reveal that 30,1 % of the participants integrate technology around 2 hours per week. However, only 0,8 % (2) of those participants reported that they never use technology in their teaching environment. On the other hand, a small amount of participants (6,1 %) claim that they integrate technology into their classrooms around 10 hours per week.

All in all, although a great deal of the participants seem to integrate technology in both their personal and educational lives, their level of competence in both fields is asymmetrical despite their high degree of motivation and enthusiasm for technology integration in language education. This finding, which is related to teacher's willingness to integrate educational technology to language education, shows similarities with related studies introduced in the literature review section as well.

Similar to the findings of those studies, technology integration to language education is implemented as a result of teachers' motivations and their personal disposition in line with educational reasons such as enriching the content of instruction, and increasing the level of participation and interaction between teachers and students.

## **4.2 FINDINGS IN RELATION TO RESEARCH QUESTIONS**

In order to find answer to the level of technology readiness of EFL teachers, which was the main focus of the first research question, each item in the questionnaire was analysed in order to depict the whole picture. The results of the analysis were depicted as percentages and frequencies in Table 11. Thus, based on the analysis of each item (items 1-22) in the questionnaire; the findings were reported in the following sections.

**Table 11.** Percentages and frequencies of items in the questionnaire

Statements	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	%	f	%	f	%	f	%	f	%	f
1. I feel confident in my ability to use technology in teaching.	31,7	78	3,3	8	12,6	31	52,4	129	0	0
2. In my opinion education technology enriches learning environment.	48,8	120	2,4	6	6,5	16	42,3	104	0	0
3. I think using education technology makes my students' learning more interesting.	52,4	129	,8	2	2,8	7	43,9	108	0	0
4. I have attended in-service training on using educational technology.	52	128	0	0	0	0	48	118	0	0
5. I believe technology can be a good supplement to support teaching.	18,3	45	14,6	36	26	64	41,1	101	0	0
6. I have a positive attitude towards the use of technology for language teaching.	53,3	131	0,8	2	2	5	43,9	108	0	0
7. I believe knowing about technology will make me a better teacher.	54,9	135	1,2	3	3,3	8	40,7	100	0	0
8. I think technology integration is more effective than the traditional approach.	48,8	120	5,3	13	8,1	20	37,8	93	0	0
9. I believe technology has a large influence on students' motivation.	0	0	0	0	32,1	79	67,9	167	0	0
10. I have enough knowledge for using technological aids.	37,8	93	2,8	7	12,6	31	46,7	115	0	0
11. I would like to learn more about new developments in education technology.	43,1	106	1,6	4	6,1	15	49,2	121	0	0
12. I use internet to retrieve course related information.	17,1	42	5,3	13	20,3	50	57,3	141	0	0
13. I always try to persuade my colleagues to use new technologies in the classroom.	44,3	109	2,0	5	6,9	17	46,7	115	0	0
14. I can use appropriate Web 2.0 tools for my courses.	28,9	71	2,4	6	9,8	24	58,9	145	0	0
15. I can evaluate appropriateness of educational software for classroom use.	17,9	44	10,6	26	29,3	72	42,3	104	0	0
16. I believe there is a relation between student success and use of technology in classroom.	18,7	46	15	37	26,4	65	39,8	98	0	0
17. I have access to technology at my school.	48	118	5,7	14	10,6	26	35,8	88	0	0
18. I have sufficient information on some basic computer programs.	17,5	43	10,2	25	22,8	56	49,6	122	0	0
19. I would be more confident while using technology in classroom, if I was more trained about it.	28,9	71	2,4	6	12,6	31	56,1	138	0	0
20. I refrain from using educational technology in classroom for fear of making mistakes.	17,5	43	12,6	31	24	59	45,9	113	0	0
21. I believe that additional training on educational technology will make a remarkable contribution to performance of teachers, which will influence success, and participation of students.	32,1	79	0	0	11	27	56,9	140	0	0
22. I have sufficient level of competence on educational technology to guide students and to enhance quality of education provided in classroom.	16,3	40	9,3	23	15	37	59,3	146	0	0

It is believed that teachers' personal opinions and motivations play quite vital role in technology integration as well as the readiness for technology integration into their teaching environment. Overall evaluation of "Technology (e)-Readiness Questionnaire for Teachers" revealed that, as it is seen in Table 11, over half of the participants have varying degree of negative attitudes towards technology integration in their classrooms.

In order to see the picture in detail, the results depicted in Table 11 will be handled item by item. However, while interpreting the findings of item analysis of the "Technology (e)-Readiness Questionnaire for Teachers" a cumulative perspective is followed. That is, while neutral options left out of concern, other opinions on either positive sides (Agree, Strongly Agree) or negative sides (Disagree, Strongly disagree) were treated as a total score.

The analysis of the item 1, which sought the participants self confidence on using educational technology in their teaching environment, revealed that while slightly over half of the participants (52.4 %) feel confident in using technology in their teaching environments, some of them (35 %) do not feel confident in using technology in their classes. The second item in the "Technology (e)-Readiness Questionnaire for Teachers" revealed that almost half of the participants (51.2%) do not believe technology enriches their students' learning environments. Similarly, in item 3, which states, "*I think using education technology makes my students' learning more interesting*", slightly over half of the participants (53.2%) responded on the negative side. That is, they believe that technology do not make their students' learning more interesting. On the other hand, participants' responses to item 5, which states "*I believe technology can be a good supplement to support teaching*" revealed that 41.1 % of them have positive attitudes and 32.9 % of them have negative attitudes. Additionally, it is found that, almost a quarter of the participants (26%) neither agree nor disagree with this statement. Participants' negative attitudes towards technology integration seen in their responses to item 6, which states, "*I have a positive attitude towards the use of technology for language teaching*". While almost 54% of the participants stated

that they strongly disagree with this statement, only 43.9 % of them have positive attitudes towards use of technology in their language classrooms.

Similarly, in their responses to item 7, which states “*I believe knowing about technology will make me a better teacher*” most of the participants (56.1 %) have negative attitudes. That is, they believe that having knowledge on technology use do not contribute to their teachership. In addition to the abovementioned data manifesting teachers’ negative motivation for technology integration, the research reveals the fact that teachers establish a complicated relation between educational technology and teaching experience. This complex relation shaped by various dynamics such as level of education and level of experience. With the aim of further analysis of this finding, a Pearson correlation concerning participants’ demographic data such as their level of teaching experience and their educational backgrounds was computed. The findings of Pearson correlation reported in Table 12.

**Table 12:** Correlation between “item7” and “Level of Experience” and “Level of Education”

		Level of Experience	Level of Education	“I believe knowing about technology will make me a better teacher”
Level of Experience	Pearson Correlation	1	,023	-,760
	Sig. (2-tailed)		,019	-,674
	N	246	246	246
Level of Education	Pearson Correlation	,023	1	,827
	Sig. (2-tailed)	,019		,763
	N	246	246	246
“I believe knowing about technology will make me a better teacher”	Pearson Correlation	-,760	,827	1
	Sig. (2-tailed)	-,674	,763	
	N	246	246	246

\*. Correlation is significant at the 0.05 level (2-tailed).

Herein, Pearson correlation coefficient values of -0.760 and 0.827 proves respectively the fact while there appears to be a negative strong correlation between the level of experience and teachers’ approaches to the statement that “I believe knowing technology will make me a better teacher” (item 7), there is a very strong negative

correlation exist between the level of experience and teachers' responses to the statement. That is, the the participants who has years in teaching experience have more negative attitudes towards technology integration.

Furthermore, the findings related to the item 8 presents the fact that 54.1 % of participants believe that technology integration is not effective than traditional methods of instruction. Similar to that of item 7, a Pearson correlation test was computed for item 8 concerning participants level of teaching experiences and their educational backgrounds. As illustrated in Table 13, while a negative strong correlation between level of experience of teachers and their responses to the statement, a positive strong correlation is identified regarding the level of education with the correlation coefficient values of -0,652 and 0,622 respectively.

**Table 13:** Correlation between “Item 8” and “Level of Experience” and “Level of Education”

		Level of Experience	Level of Education	“I think technology integration is more effective than traditional teaching”
Level of Experience	Pearson Correlation	1	,023	-,652
	Sig. (2-tailed)		,019	-,604
	N	246	246	246
Level of Education	Pearson Correlation	,023	1	,622
	Sig. (2-tailed)	,019		,567
	N	246	246	246
“I think technology integration is more effective than traditional teaching”	Pearson Correlation	-,652	,622	1
	Sig. (2-tailed)	-,604	,567	
	N	246	246	246

\*. Correlation is significant at the 0.05 level (2-tailed).

Following this trend, the responses to item 9 revealed that a great deal of the participants (67.9 %) believe that technology has a large influence on student motivation. This finding showed that most of the participants realize a powerful relation between students' motivation and their use of technology in classroom.

In line with the trends influenced by level of teaching experience and level of education of the teachers, the responses to the statement that “*I always try to persuade my colleagues to use new technologies in the classroom*” (item 13) seem to be determined by similar dynamics. Therefore, a Pearson correlation calculation was also held for item 13. The findings of Pearson correlation test revealed that, on the one hand, 46.7% of the teachers tend to motivate their colleagues for using the latest educational technology; on the other hand, 46.3% do not share such a motivation. The reasons for those affirmative and negative responses having minor difference in percentages lies in a negative moderate correlation between level of experience and to teacher’s responses and a positive strong correlation existing between level of education and the responses. Considering all those findings, it is possible to reach a conclusion that younger and more educated teachers show a remarkable tendency to technology integration in education in accordance with the necessities of information society and with the ideal of 21<sup>st</sup> century teacher.

Apart from teachers’ perspectives on technology integration in language education, which profoundly influences their e-readiness, the research also questions the level of e-readiness of school environment for such an integration. The data on the issue reveal the fact that most of the schools seem not to be equipped with various forms of educational technology to a sufficient degree. Such an inference is supported by teachers’ responses to the statement that “*I have access to technology at my school*” (item 17). Regarding the statement, while over half of the teachers (53.7 %) declare not having access to technology in their school environments, 35.8 % of them admits to have some level of technological access. This peculiar data manifests the fact that initiations in line with technology endowment of the schools has not reached the specified target. This finding showed that the level of e-readiness of school environments declared in the 9<sup>th</sup> Development Plan after 6 years of implementation process, which equally influence the level of e-readiness of teachers, who can only become effective through use of educational technology in the classroom procured by the Ministry of National Education. Therefore, it seems that the numbers declared by



the Ministry of National Education regarding the procurement of various forms of educational technology presented in Chapter 3 has fallen short of the required level of delivery and installation of new media tools. It can be claimed that this fact manifest by itself the reasons of disappointment and dissatisfaction with the initiations both among teachers and education community.

As mentioned above, teachers' willingness and motivation, their self-assesment over their relation with the educational technology and e-readiness of school environment have significant role in e-readiness of teachers. In addition to these factors, teachers' level of competence stands as the determining parameter on the issue of e-readiness with its organic relation with teacher training or in-service training. Although the time teachers spend on technology use in their daily lives and in their educational lives seems similar, as the demographic data of the research presents, the level of competence obtained in each field differs in a substantial way reflected on teachers' self-assessment on the level of confidence in using educational technology. For instance, 52.4% and 31.7% of teachers who agreed and strongly disagreed respectively to the statement that "*I feel confident in my ability to use technology in teaching*" (item 1).

Moreover, as reflected in Table 14, majority of teachers find themselves competent in using educational technology to such a degree that 59.3 % of teachers give positive answers to the item that "*I have sufficient level of competence on educational technology to guide students and to enhance quality of education provided in classroom*" (item 22).

**Table 14:** Teachers' Self-Assessment to the item 22

	<b>Frequency</b>	<b>Percent</b>
Strongly Disagree	146	59.3
Disagree	37	15.0
Neutral	23	9.3
Agree	40	16.3

However, their answers to the questions related to their everyday engagement with technology which obtained by the demographic data illustrates a completely dissimilar picture. This complicated situation is manifested through their self-assessment regarding their level of knowledge on technological devices through their answers given to the statement “*I have enough knowledge for using technological aids*” (item 10).

Furthermore, the level of contradiction increases with the teachers’ answers given against the statement that “*I have sufficient information on some basic computer programs*” (item 18). Regarding the question, while 49.6% of teachers declare to have necessary level of information with regard to use of basic computer programs, only 27.7 % of them regards themselves as unqualified for utilization those programs. This particular data is reinforced by the affirmative responses given to the statements that “*I can use appropriate Web 2.0 tools for my courses*” (item 14) and “*I can evaluate appropriateness of educational software for classroom use*” (item 15) with 58.9% and 42.3% respectively.

In light of the findings above, it is easy to answer one of research questions and to reach the conclusion that there is an inverse relationship between the daily technology use of teachers and their readiness in terms of technology use in the classroom. In other words, research findings help us to infer that although a great portion of our research subjects regards themselves active users of new media technologies in terms of using various computer appliances; they, at the same time, declare their incompetence in using educational technology.

Despite this confounding picture, it is possible to grasp teachers’ curiosity and eagerness in having comprehensive knowledge on the latest educational technology over their positive and negative opinions towards the statement “*I would like to learn more about new developments in education technology*” (item 11) with 49.2 % and 44.6% respectively. These close percentages give us a hint about the role of level of

experience, level of education and gender in the attitudes towards enthusiasm to follow technological innovation regarding educational technology. As pictured in Table 15, while there seems a negative strong correlation between level of experience and teachers's responses to the statement, a positive strong correlation is discovered regarding level of education with correlation coefficients -0.617 and 0.679 respectively. Furthermore, in addition to variables level of education and level of experience, gender has also a substantial impact on the responses given to the statement. The Pearson correlation findings revealed that the degree that female participants are less willing to be informed about new developments in educational technology with correlation coefficient of 0,312 compared to male participants' enthusiasm towards innovations in the field giving way to a positive strong correlation of 0.734.

**Table 15:** Correlation between “item 11” and “Level of Experience” and “Level of Education”

		Level of Experience	Level of Education	“I would like to learn more about new developments in education technology”
Level of Experience	Pearson Correlation	1	,023	-,617
	Sig. (2-tailed)		,019	-,455
	N	246	246	246
Level of Education	Pearson Correlation	,023	1	,679
	Sig. (2-tailed)	,019		,467
	N	246	246	246
“I would like to learn more about new developments in education technology”	Pearson Correlation	-,617	,679	1
	Sig. (2-tailed)	-,455	,467	
	N	246	246	246

\*Correlation is significant at the 0.05 level (2-tailed).

Confounding relation between teachers' daily use of communication technology and their incompetence in utilization of educational technology despite their willingness in line with technology use initiatives implemented by the Ministry of National Education

lead us to the question the reasons for such a predicament. The research displays the fact that the difficulties faced by the teachers during the use of educational technology generate certain emotions, which result in even alienation from the technologies itself.

**Table 16:** Teachers’ Alienation Towards Use of Educational Technology due to Fear of Making Mistakes

	<b>Frequency</b>	<b>Percent</b>
Strongly Disagree	43	17.5
Disagree	31	12.6
Neutral	59	24.0
Agree	113	45.9

On the issue, Table 16 illustrates teachers’ responses to the statement that “*I refrain from using educational technology in classroom for fear of making mistakes*” (item 20). As it is seen in the table, while 45.9% of teachers declare that they are estranged from those technologies due to probability of misapplication, some sections within teachers’ strongly disagree and disagree with the existence of abovementioned kind of tendency with 17.5% and 12.6% respectively.

All these findings lead to the conclusion that there is an organic relation between teachers’ e-readiness for integration educational technology in language education and in-service or teacher training on using educational technology. However, this relation has not been established in proper and functional level through which the objectives of initiatives implemented by the Ministry of National Education can be put into practice. In other words, although the components of the initiatives include efficient use of information technologies in education programs and in-service trainings for teachers (Fatih Project, 2016), according to the research findings, it is possible to claim that such initiatives has remained incapable of fulfilling its objectives.

Participants’ responses to the statement that “*I have attended in-service training on using educational technology*” (item 4) acknowledges the claim that in-service training provided in line with the objectives of initiatives implemented by the Ministry of

National Education has only reached to a limited portion of English Language Teachers within the participants of the present study. In reply to the abovementioned statement, while 52.0 % of participants strongly disagree to receive any type of training on use of information technology, 48.0% declare to have at least one of the educational modules provided within the scope of the project.

The responses given by teachers to statement that “*I believe that additional training on educational technology will make a remarkable contribution to performance of teachers will, in turn, influence success and participation of students*” (item 21) display the quality of training provided to the teachers. Responses displays a general dissatisfaction of teachers regarding the level and content of the training to such a degree that while 56.9% of teachers agree with the insufficiency of teachers’ training, a small portion (32.1 % ) within the participants do not see any necessity of additional teacher training on use of information technology for educational purposes.

Moreover, majority of teachers (56.1 %) agrees to the statement “*I would be more confident while using technology in classroom, if I was more trained about it*” (item 19), on the other hand 31.3 % of the participants declared their disagreement with the statement. Therefore, we clearly arrive to a judgment that most of the teacher participating in the study see teacher training on use of educational technology as mandatory to technology integration and their technology use readiness.

In order to make a further analysis, a Pearson correlation analysis was run for some dynamics in demographic data and item 19. Their judgements regarding the necessity of teacher training are reinforced by the findings displayed in Table 17. The Pearson correlation analysis reveals that there is a weak positive correlation between level of experience and a strong positive correlation between level of education and necessity of additional training having correlation coefficients of 0,317 and 0,742 respectively.

**Table 17:** Correlation between “item 19” and “Level of Experience” and “Level of Education”

		Level of Experience	Level of Education	“I believe that additional training on educational technology will make a remarkable contribution to performance of teachers will, in turn, influence success and participation of students”
Level of Experience	Pearson Correlation	1	,023	,317
	Sig. (2-tailed)		,019	,289
	N	246	246	246
Level of Education	Pearson Correlation	,023	1	,742
	Sig. (2-tailed)	,019		,687
	N	246	246	246
“I believe that additional training on educational technology will make a remarkable contribution to performance of teachers will, in turn, influence success and participation of students”	Pearson Correlation	,317	,742	1
	Sig. (2-tailed)	,289	,687	
	N	246	246	246

\*. Correlation is significant at the 0.05 level (2-tailed).

Furthermore, a similar approach with the regard to inadequacy of teacher training and reflections of this insufficiency on teachers has a significant relation with the variables of gender and level of experience. Table 18 demonstrates that there is a strong positive correlation between femnale and teachers’ confidence resulting from additional training compared to male teachers who reveal a weak positive correlation. With regard to level of experience, teachers manifest a moderate positive correlation with 0,567.

**Table 18:** Correlation between “item 19” and “Gender”

		Men	Women	“I would be more confident while using technology in classroom, if I was more trained about it”
Men	Pearson Correlation	1	,023	,317
	Sig. (2-tailed)		,019	,305
	N	246	246	246
Women	Pearson Correlation	,023	1	,779
	Sig. (2-tailed)	,019		,667
	N	246	246	246
“I would be more confident while using technology in classroom, if I was more trained about it”	Pearson Correlation	,317	,779	1
	Sig. (2-tailed)	,305	,667	
	N	246	246	246

\*. Correlation is significant at the 0.05 level (2-tailed).

In light of the above-mentioned findings of the present study seem sufficient and rich enough to answer the research questions posed in the introductory chapter. Therefore, it is inferred that teachers in general are not satisfied with their level of technology readiness and they openly demand additional training, which will, in turn, increase their level of confidence as a teacher, and success and participation of students. Moreover, in addition to complaints regarding quality of teacher training on use of educational technology, nearly half of the participants declare even not to have any from training.

On the issue of the relation between teachers’ level of experience and their e-readiness, participants having high level of experience tend to be less interested in following latest developments in educational technology, less motivated and enthusiastic about integrating contemporary computer-aided instruction methods and less convinced about positive impact of educational technology due to not internalizing the ideal of 21<sup>st</sup> century teacher as an agent of information society.

The relation between teachers’ level of education and their e-readiness displays a picture in which as teachers’ level of education advances, their positive approach to integration technology in education through having additional training, their desire to

be constantly informed about innovations and to experience new forms of instruction supported by new media appliances are foregrounded.

In terms of the role of gender in e-readiness of teacher, research findings reveal the fact that female teachers are less willing to be informed about new developments in educational technology compared to male participants' enthusiasm towards innovations in the field. Moreover, it is proved that female participants feel more the need of teacher training and in-service training for elevating their level of confidence during teaching process.

In order to scrutinize participants' perceptions in relation to technology use in the classroom, focus group interviews were held with 19 Head of English Teachers from each district of Antalya.

It is believed that the Head of English Teachers from each district might illustrate the other language teachers' opinions on the issue. The first question of the interviews was about the role of technology integration in language classroom on students' motivation and success. Although they give varying answers, the focus of answers was using technology both increase students' motivation as well as success. Some of them claim that the lessons in which teachers use the technology lead an enjoyable, useful and effective courses since students eager to use such tech Technologies both in and out of the class hours. For instance, one of the participants stated that "*The use of technology enhances my students' motivation because they were born as digital natives.*" The analysis of the interview transcripts of the participant revealed that almost 94.7% of them believe that technology integration increase the students' motivation and lead them to success. However 5% of the participants do not believe that the use of technology do not have any affect on their students' success. For instance, one of the participants stating positive opinion on motivation claim that "*I don't believe technology increases the success as students are assessed according to traditional ways.*"



The same participants were also asked the role of technology integration for teachers' motivation and success and almost all of them depict positive opinions on technology use in their language classrooms. They claim that using technology increases teacher motivation; helps teachers to teach in an effective way; gives chance to appeal different learning styles; creates authentic and enjoyable environments. They also believe that the use of technology contributes to their professional developments and personal satisfaction. On the other hand, while believing that using technology effects teacher motivation some of the participants (36.8%) found using technology as a time consuming. In a similar vein, one of the participants (5.26%) believes that technology use in the language classroom demotivates teachers. S/he claims that *"Technology use is like a blade. Sometimes technology demotivates teachers especially if teacher can not be successful using ICT in the classroom, he can feel humiliated in front of the children."*

In the third question of the interview, participants were asked whether technology use is a burden or not, slightly over the half of the participants (53%) do not consider technology use as a burden for their profession. For instance one of the participants stated that *"Technology is even my everything. Teaching would be very boring and lack of without it."* On the other hand, 47% of the participants found the technology use in classroom as a burden for themselves. They have varying reasons for finding it as a burden based on external factors such as weak internet connection, taking too much time for preparation etc.

In the focus interviews, participants were asked to make a self-evaluation on their technology competence. Over half of the participants (58.3%) stated that they have enough competence in technology use in their classroom. On the other hand, 41.7% of them do not find themselves as competent as other in using technology in their classroom. For instance although s/he uses facebook and other social media very effectively in his/her daily life, s/he stated that *"I feel myself less competent in using smart boards in the classes, although I have taken some in-service training."*

In order to understand whether participants' schools play any role on their technological readiness, they were asked their schools contribution in terms of technological equipment in the focused group interviews. Almost all of them (89,4%) stated that their schools have provided them adequate technological equipments to use in their language classrooms. However, very few of the participants' (10.6%) lay the blame at their schools. Additionally it should be noted that those who blame their schools accepted they have technological equipment at their schools, but their principals do not allow them to use those equipments freely. For instance one the participants stated that "*They (school principals) worry about broken equipments*". Similarly another participant claimed that "*I only have a blackboard and some cables which are never used in my classroom. It is a pity...*".

The most striking question in the focused group interviews was "Do you think you feel ready to use technology in your classroom? If not, do you need in-service training program for technology use in classroom?". Participants were asked whether they are ready to use technology in their classroom. Most of the participants (68.6%) stated that they feel ready to use technology in their classroom. On the other hand, 42.4% of them do not feel ready to use technology in their classroom. For instance, one of the participants stated "*Personally, I am not ready to use technology. I need help from my students in the class and it makes me not feel good in the class*". Furthermore, they were also asked if they need any in-service training on this issue, the analysis of the data revealed that 63.6% of them need more in-service training and guidance in technology use and adaptation in their classroom.

The focus group interviews in which they were asked their positive or negative attitudes revealed that although most of them have positive attitudes towards technology usage in language classrooms, some of them (36.4%) have varying negative attitudes. For instance, while one the participants stated "*It demotivates teachers if not succeeded*". Another participant stated that "*It will be a burden for us, sooner or later we should*

*integrate technology to our lesson plans. Because of some external factors, we cannot use technology effectively. Therefore, I have some negative considerations”.*

When they were asked their additional comments on technology integration and their readiness to do it, they said that teachers should not be forced to use specific materials just for the sake of technology use in the classroom. They also demand wider internet access in their schools, as well as, more in-service training by the governmental bodies.

Another finding that come out of research questions and obtained data of the present study is that the data of the present study intended to gather by means of an electronic environment, namely, e-mail correspondence. Thus, the link of the questionnaire form was sent to 1489 teachers working in Antalya region through their e-mail adreeses that obtained from the schools that those teachers are currently working. However, although all of these teachers were also informed about the e-mail invitation through their administrators only 282 of them (18.9%) responded to the e-mail invitation and fill in the questionnaire about e-readiness on technology use in their language classrooms. This finding actually gives a very clear clue about the e-readiness of the participants.

## **CHAPTER 5**

### **CONCLUSION**

The rapid growth in technology have made tremendous changes in the way we live, as well as the demands of the society. Recognizing the impact of new technologies on the workplace and everyday life, today's teacher education institutions try to restructure their education programs and classroom facilities, in order to minimize the teaching and learning technology gap between today and the future. This restructuring process requires effective integration of technologies into existing educational contexts.

Regardless of the quantity of technology placed in classrooms, to a certain extent accomplished through initiatives implemented by the Ministry of National Education, the agents who will utilize those tools are teachers. The majority of teachers believes use of educational technology is crucial for teaching. However, lack confidence and knowledge for utilization come as a significant barrier during the process of technology integration. In this context, it become mandatory that instructors should possess the skills and competencies essential for designing, delivering and evaluating instruction as a result of a satisfactory and sufficient level of teacher education which stands as a key to e-readiness of teachers. However, as the research reveals, Turkey, the initiatives implemented by the Ministry of National Education has failed to reach to the targeted level of technology integration in education and e-readiness of teacher despite clearly defined objectives and well-planned organization.

This study has aimed to generate information, which illustrates the current practices and policies within education community in terms of technology integration and to urge policy makers to produce more effective strategies for helping teachers to overcome the barriers that are preventing them from using technology effectively within the classroom. For this purpose, in light of the above-mentioned dynamics having

substantive role in e-readiness of teachers, it is recommended that policy makers, school administrators and teachers themselves should design various projects to be practiced in micro level, which will elevate teachers' e-readiness in addition to intensification of in-service trainings provided to teachers. It is believed that the only solution which will influence the success of technology integration contributing to the quality of education lies in investment made on human resource and their readiness to use such new technologies in education rather than on technology itself both its physical and non-physical form.

All findings show that there is a relation between teachers' e-readiness for using educational technology in language education and in-service or teacher training on integrating educational technology. However, this relation has not been established in proper and functional level through which the objectives of initiatives implemented by the Ministry of National Education can be put into practice. In other words, although the components of the initiatives include efficient use of information technologies in education programs and in-service trainings for teachers (Fatih Project, 2016), according to the research findings, it is possible to claim that such initiatives has remained incapable of fulfilling its objectives.

It is concluded that teachers in general are not satisfied with their level of technology readiness and they openly need additional in service teacher training, which will, in turn, increase their level of confidence as a teacher, and success and participation of students.

In terms of the role of gender in e-readiness of teacher, research findings reveal the fact that female teachers are less willing to be informed about new developments in educational technology compared to male participants' enthusiasm towards innovations in the field. Moreover, it is proved that female participants feel more the need of teacher training and in-service training for elevating their level of confidence during teaching process.

In general, the overall analysis of findings revealed that almost over half of the participants have negative attitudes towards technology integration into their learning environments, which can be interpreted as they seem resistant to technology integration. Thus, it can be claimed that in terms of educational technology use in their classrooms teachers are not ready to integrate technology use in the classroom. However, slightly above the half of the participants feel confident in their ability to use technology in teaching. This finding shows that there is contradiction between what their confidence levels and their general attitude towards integrating educational technology in the classroom.

## REFERENCES

- Ali, H.O. (2010). Administrators', Teachers' and Students' Perceptions about the Benefits of and Barriers to TELL at Koya University. Unpublished Master's Thesis. Bilkent University: Ankara.
- Aufderheide, P., & Firestone, C. (1993). Media literacy: A report of the National Leadership Conference on Media Literacy. Washington, DC: Communications and Society Program, Aspen Institute
- Attwell, G. (2007). Web 2.0 and the changing ways we are using computers for learning: What are the implications for pedagogy and curriculum? Retrieved on February 1, 2016, from [https://www.openeducationeuropa.eu/sites/default/files/legacy\\_files/old/media13018.pdf](https://www.openeducationeuropa.eu/sites/default/files/legacy_files/old/media13018.pdf)
- Baby, J. (1992). Curriculum applications in special education computing. *Journal of Computer Based Instruction* 19,1-5.
- Barab, S. A., Squire, K., & Dueber, B. (2000). Supporting authenticity through participatory learning. *Educational Technology Research and Development*, 48(2), 37-62.
- Betrus, A. K., and Molenda, M. (2002). Historical evolution of instructional technology in teacher education programs. *TechTrends*, 46, 18- 21,33.
- Bjekić, D., and Zlatić, L. (2006). Effects of professional activities on the teachers' communication competencies development. In: M. Brejc, (Ed.). *Cooperative partnerships in Teacher Education – Proceedings* (pp. 163-172), Ljubljana:

National School for leadership in Education. <http://www.pef.uni-lj.si/atee/978-961-6637-06-0/163-172.pdf>

Bjekić, D., Krneta, R., Milošević, D. (2008). Kompetencije za e-nastavu u sistemu profesionalnih kompetencija nastavnika osnovne škole, (E-teaching competencies in the system of the primary school teachers' competencies), *Inovacije u nastavi* 21(2), 7-20, Available on [http://www.uf.bg.ac.rs/inovacije/broj\\_2\\_8/1.htm](http://www.uf.bg.ac.rs/inovacije/broj_2_8/1.htm)

Bridges.org. (2001), "Comparison of E-readiness Assessment Models" available online at <http://www.bridges.org/ereadiness/tools.html>

Büyüköztürk, Ş. (2007), Sosyal Bilimler için Veri Analizi El Kitabı, Ankara: Pegem A Yayıncılık

Cavin, R. M. (2007) Developing Technological Pedagogical Content Knowledge in Preservice Teachers Through Microteaching Lesson Study. Phd. Dissertation.

CID (2000), "The Readiness for the Networked World: A guide for Developing Countries," Information Technology Group, Center for International Development, Harvard University: Available on-line at <http://www.readinessguide.org>

Creswell, J. W., and Plano Clark, V. L. (2011). Designing and conducting mixed methods research (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Dada, D. (2006). E-Readiness for developing countries: Moving the focus from the environment to the users. *The Electronic Journal on Information Systems in Developing Countries*, 27(6), 1-14.

de Leeuw, E. D. and Hox, J. J. (2008) "Self-administered questionnaires: mail surveys and other applications." International Handbook of Survey Methodology. Ed. de



- Leeuw, E. D., Joop J. Hox, and Don A. Dillman. New York: Lawrence Erlbaum Associates. pp. 239-263.
- Dutta S. and Jain A. (2005), "Networked Readiness of Nations", in Global IT Report 2004-2005, World Economic Forum, 2005.
- Dorathy, A. A. and Mahalakshmi, S.N. (2014). Technology in Teaching and Learning English Language. International Journal on Studies in English Language and Literature (IJSELL) 2 (9), pp132-137
- Earle, R. S. (2002), The integration of instructional technology into public education: Promises and Challenges. ET Magazine. 42(1), 5-13.
- Economist Intelligence Unit "E-readiness rankings 2009 The usage imperative" retrieved from <https://graphics.eiu.com/pdf/E-readiness%20rankings.pdf>
- EIU. (2006). "The 2006 e-readiness Rankings. A white paper from The Economist Intelligence Unit", EIU, 2002. Available at: [http://www.tobb.org.tr/BilgiHizmetleri/Documents/Raporlar/2006Ereadiness\\_Ranking.pdf](http://www.tobb.org.tr/BilgiHizmetleri/Documents/Raporlar/2006Ereadiness_Ranking.pdf)
- Fatih Projesi, 2016 "Fatih Projesi Kapsamı" retrieved from <http://www.projefatih.com/fatih-projesi/fatih-projesi-kapsami/>
- Fichou, D. (2003). Network Requirements. USA: DynEd International.
- Fouts, J. T. (2000). *Research on computers and education: Past, present and future*. Retrieved 9/29/2003, from <http://www.esdl89.org/tlp/images/TotalReport3.pdf>
- Gleeson, PB. (2003). Managing and motivating the generations: implications for the student and the employee. Paper presented at a Combined Sections meeting, Tampa, Florida, 12-16 February. Available at: [http://www.uwsp.edu/education/facets/links\\_resources/4413.pdf](http://www.uwsp.edu/education/facets/links_resources/4413.pdf).

- Goldstein, G. (1997). *Information Technology in English Schools: A Commentary on Inspection Findings (1995–6)*. London: NCET/OFSTED.
- Gray, L., Thomas, N., and Lewis, L. (2010). *Teachers' Use of Educational Technology in U.S. Public Schools: 2009 (NCES 2010-040)*. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- Gömlüksiz, M. (2004). Use of educational technology in English classes. *Turkish Online Journal of Educational Technology*, 3.
- Halse, M.L. and Mallinson, B.J. (2008). Investigating popular internet applications as supporting e-learning technologies for teaching and learning with Generation Y. Paper presented at the Emerge Conference, held at the University of Cape Town, 7-18 July.
- Ilgaz, H. & Gülbahar, Y. (2015). A snapshot of online learners: e-Readiness, e-Satisfaction and expectations. *The International Review of Research in Open and Distributed Learning*, Vol:16, No:2, 171-187.
- Iverson, H. L., Lewis, M. A., & Talbot, R. M. (2008). Building a framework for determining the authenticity of instructional tasks within teacher education programs. *Teaching and Teacher Education*, 24(2), 290-302.
- Jayachandran, A. (2009). *Technology Integration Practices of Foreign Language Preservice Teachers: A Case Study*. Phd. Dissertation.
- Kabadayı, A. (2006) "Analyzing pre-school student teachers' and their cooperating teachers' attitudes towards the use of educational technology"
- Karpati, A., Torok, A., & Szirmai, A.L. (2008). E-teaching readiness of teachers: the effects of personality traits and ICT skills on changes in teaching style of

experienced educators. In Proceedings of the 7<sup>th</sup> Research Workshop of EDEN, Paris, 6-8 October 2008.

Kezi Communications. (2009). Generation Y still keeps marketers guessing. Bizcommunity.com: Daily Media, Marketing and Advertising News, 18 June. Available at: <http://www.bizcommunity.com/Article/196/347/37031.html>.

Kıldan, A. O., İbret, B. Ü., Pektaş, M., Aydınöz, D., İncikabı, L., & Reçepoğlu, E. (2013). Evaluating views of teacher trainees on teacher training process in Turkey. Australian Journal of Teacher Education, 38(4), 51-68.

Kleinbaum, D. G., Kupper, L. L., and Muller, K. E. (1987), Applied Regression Analysis and Other Multivariable Methods (Second Edition), Boston: PWS-Kent

Kumar S., Vigil K. (2011). The net generation as pre-service teachers: Transferring familiarity with new technologies to educational environments. Journal of Digital Learning in Teacher Education, 27(4), 144–151.

Leech, N. L., Barrett, K. C., & Morgan, G. A. (2005). SPSS for intermediate statistics: Use and interpretation. Mahwah, N.J: Lawrence Erlbaum.

M.E.B (2009). “Milli Eğitim Bakanlığı 2010-2014 Stratejik Planı” retrieved from [https://sgb.meb.gov.tr/Str\\_yon\\_planlama\\_V2/MEBStratejikPlan.pdf](https://sgb.meb.gov.tr/Str_yon_planlama_V2/MEBStratejikPlan.pdf)

M.E.B (2015). “Milli Eğitim Bakanlığı 2015-2019 Stratejik Planı” retrieved from [https://sgb.meb.gov.tr/Str\\_yon\\_planlama\\_V2/MEBStratejikPlan.pdf](https://sgb.meb.gov.tr/Str_yon_planlama_V2/MEBStratejikPlan.pdf)

M.E.B (2016) “Movement of Enhancing Opportunities and Improving Technology (FATİH)” retrieved from [http://fatihprojesi.meb.gov.tr/en/?page\\_id=10](http://fatihprojesi.meb.gov.tr/en/?page_id=10)

M.E.B (2016) Eğitimde Fatih Projesi Öğretmen Eğitimleri retrieved from <http://fatihprojesi.meb.gov.tr/ogretmen-egitimi/>

- Machado, C. (2007). Developing an e-readiness model for higher education institutions: results of a focus group study, *British Journal of Educational Technology*, 38 (1), 72-82.
- Marimuthu, R. Soon, and G. Y. (2005). The DynED Language Learning Software: To What Extent Does It Subscribe to the ARCS Instructional Model? *Malaysian Online Journal of Instructional Technology*. 2(3), 9 – 16.
- Meadows J. and Leask M. (2002). Why use ICT? In M. Leask and J. Meadows (Eds.), *Teaching and Learning with ICT in the Primary School*, (pp.20-38). London: Routledge.
- Mundy, J. J. (2011). *Is There a Relationship Between Electronic White Boards in the Classroom and Student Success?*, Phd. Dissertation
- NCES (2003). National Center for Education Statistics, *Technology in Schools: Suggestions, Tools and Guidelines for Assessing Technology in Elementary and Secondary Education*, Washington, D.C.
- Parasuraman, A. (2000). Technology Readiness Index (TRI): A Multiple-Item Scale to Measure Readiness to Embrace New Technologies. *Journal of Service Research*, 2(4), pp. 307-320. doi:10.1177/109467050024001.
- Price, C. (20098). “Why Don’t My Students Think I’m Groovy? The New” R” s for Engaging Millennial Learners.” *The Teaching Professor*. 23.7.
- Prime Ministry Report. (2012). *Fatih Project Position Paper: interactive smart board*, issued by the General Directorate of Innovation and Educational Technologies in the Ministry of National Education on the behalf of the Prime Ministry. [http://fatihprojesi.meb.gov.tr/upload/fatih\\_Project\\_Interactive\\_Smart\\_Board\\_Position\\_Paper.pdf](http://fatihprojesi.meb.gov.tr/upload/fatih_Project_Interactive_Smart_Board_Position_Paper.pdf)

- Ravitz, J. L., Wong, Y. T., & Becker, H. J. (1999). Teaching, learning, and computing: Report to participants. Irvine, CA: Research Institute on the Integration of Technology]
- Reilly, P. (2012). Understanding and teaching generation Y. English Teaching Forum, No 1 (2012) Retrieved on 10<sup>th</sup> February 2014 from [http://americanenglish.state.gov/files/ae/resource\\_files/50\\_1\\_3\\_reilly.pdf](http://americanenglish.state.gov/files/ae/resource_files/50_1_3_reilly.pdf)
- Ritter, L. and Sue, V. (2007). Systematic planning for using an online survey. New Directions for Evaluation, (115), pp.15-22.
- Sadik, A. (2007). The readiness of faculty members to develop and implement e-learning: The case of an Egyptian university. International Journal on E-Learning, 6(3),433-453.
- Sandars, J., and C. Morrison. 2007. What is the Net Generation? The challenge for future medical education. Medical Teacher 29 (2/3): 85–88.
- Sarı, N. (2015). “FATİH Projesi Uzaktan Eğitimleri ile ilgili bilgilendirme” retrieved from <http://www.eba.gov.tr/haber/1451486450>
- Shoffner, M. (2009). Personal Attitudes and Technology: Implications for Preservice Teacher Reflective Practice. Teacher Education Quarterly, 36(2), 143-161. Retrieved from <http://www.jstor.org/stable/23479257>
- Singh, T., & Chan, S. (2014). Teacher readiness on ICT integration in teaching-learning: a Malaysian Case study. International Journal of Asian Social Science, 4(7), 874-885.
- Skiba, D. J. (2008). Nursing education 2.0: Games as pedagogical platforms. Nursing Education Perspectives 29 (3): 174–75.
- Stark, K. (2004). English for Success Courseware. TESL-EJ. September, 8(2).

- Startic, A.I. (2010). Educational technology for the inclusive classroom. *The Turkish Online Journal of Educational Technology*, 9 (3), 26-37.
- Summak, S. M., M. Bağlıbel, M. Samancıoğlu (2010). Technology Readiness of Primary School Teachers: A Case Study in Turkey. *Procedia*. Volume 2, Issue 2, 2691-2675.
- Şencan, H. (2005). Sosyal ve davranışsal ölçümlerde güvenilirlik ve geçerlilik. Ankara: Seçkin Yayıncılık.
- Tabachnick, B. G., and Fidell, L. S. (2001). Using Multivariate Statistics. Boston: Allyn and Bacon.
- Tan del Rosario, M. (2007). Technology Integration in Teacher Education Programs in the Philippines: An International Development Perspective. Phd. Dissertation.
- Tavşancıl, E. (2005). Tutumların ölçülmesi ve SPSS ile veri analizi. Ankara: Nobel Yayınevi.
- Teddlie, C., Yu, F. (2007). Mixed Methods Sampling: A Atypology with Examples. *Journal of Mixed Methods Research*. 1:77, 77-100.
- Tolu, H. (2014).The Politics of the ICT4ED (Fatih) Project in Turkey. *Policy Futures in Education*. Volume 12 Number 6. 832-849.
- Vannatta, R. A., & Beyerbach, B. (2000). Facilitating a constructivist vision of technology integration among education faculty and preservice teachers. *Journal of Research on Computing in Education*, 33(2), 132-148.
- Vi, V., T. (2005). Advantage and disadvantage of using computer network technology in language teaching. *Journal of Science, Foreign Languages*, 61-66.

- UNESCO.(2003).ICT for education in Asia-pacific. ICT policy and Strategy. UNESCO Asia-Pacific Regional Bureau for Education, Bangkok, Thailand.
- Watt, D. L. E. & Foscolos, D. (1998). Evaluating ESL Software for the Inclusive Classroom. *International Electronic Journal for Leadership in Learning*. 2(6).
- Willis, J. W., & Mehlinger, H. D. (1996). Information technology and teacher education. In J. Sikula, T. J. Buttery & E. Guyton (Eds.), *Handbook of research on teacher education* (Second Edition ed., pp. 978-1029). New York: Simon & Schuster.
- Yan, S.(2006). Understanding Generation Y. The Oberlin Review. Retrieved from [http://www.oberlin.edu/stupub/ocreview/2006/12/08/features/Understanding\\_Generation\\_Y.html](http://www.oberlin.edu/stupub/ocreview/2006/12/08/features/Understanding_Generation_Y.html)
- Zeller, R.A. and Carmines, E.G. (1978). *Statistical Analysis of Social Data*. USA, Chicago: Rand McNally College Publishing Company.
- Zhao, Y. (2003). Recent Developments in Technology and Language Learning: A Literature Review and Meta-analysis. *CALICO Journal*, 21(1), 7-27.

## APPENDIX

### QUESTIONNAIRE FORM

#### Technology (e)-Readiness Questionnaire for Teachers

The aim of this survey is to gather data about your readiness on technology use in language classrooms. Please be sure that your responses will be kept confidential and by filling out this survey you have accepted to participate in the study. Thank you for your valuable contributions!

Emre Çalışkan

English Language Teacher

**A. Please put a thick in the relevant box below:**

1. Please indicate your gender  
 Female                       Male
2. Please indicate your level of experience in teaching.  
 0-4 years  
 5-8 years  
 9-12 years  
 13-16 years  
 17 years and above
3. What is the highest degree or level of education you have completed?  
 Bachelor's degree (BA)     Master's degree (MA)     Doctorate degree (PhD)
4. Please indicate your major/department in your BA degree  
 ELT     Literature and Linguistics     Translation Studies     Other (.....)
5. Please indicate availability of your access to the following devices on a daily basis (you can check more than one option)  
 Desktop Computer (PC)     Laptop  Tablet     Smart-Phone     Smart Board     Other (.....)
6. I use social media (WhatsApp, Twitter, Facebook, Google+, etc.) to communicate with my students.  
 Yes                       No
7. Please indicate the time you spend on each device per day.

	Never	Less than 1 hour	1-2 hrs.	2-4hrs.	4-6 hrs.	6-8 hrs.	8-10 hrs.	More than 10 hrs.
• Desktop Computer (PC)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Laptop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Tablet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Smart-Phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Smart-Board	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Other (.....)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Do you use & integrate technology in your teaching environment?  
 Yes                       No



9. Please indicate how often do you use and integrate technology in your teaching environment on a weekly basis?
- |                          |                          |                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Never                    | Less than<br>1 hour      | 1-2<br>hrs.              | 2-<br>4hrs.              | 4-6<br>hrs.              | 6-8<br>hrs.              | 8-10<br>hrs.             | More than<br>10 hrs.     |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**B. Technology Readiness:**

The statements below are prepared in order to examine the technological (e)-readiness of teachers. Please put a cross to the most appropriate box that shows the level of your agreement. Note that, this is not a test, so there is no “right” or “wrong” answer. By responding to these statements, both you can help yourself understand your progress in technology use in your lessons and help us figure out the e-readiness of ELT teachers.

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I feel confident in my ability to use technology in teaching.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. In my opinion education, technology enriches learning environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I think using education technology makes my students’ learning more interesting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I have attended in-service training on using educational technology.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I believe technology can be a good supplement to support teaching.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I have a positive attitude towards the use of technology for language teaching.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I believe knowing about technology will make me a better teacher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I think technology integration is more effective than the traditional approach.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I believe technology has a large influence on students’ motivation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I have enough knowledge for using technological aids.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I would like to learn more about new developments in education technology.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I use internet to retrieve course related information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I always try to persuade my colleagues to use new technologies in the classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I can use appropriate Web 2.0 tools for my courses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I can evaluate appropriateness of educational software for classroom use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I believe there is a relation between student success and use of technology in classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I have access to technology at my school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. I have sufficient information on some basic computer programs.
19. I would be more confident while using technology in classroom, if I was more trained about it.
20. I refrain from using educational technology in classroom for fear of making mistakes.
21. I believe that additional training on educational technology will make a remarkable contribution to performance of teachers, which will, in turn, influence success and participation of students.
22. I have sufficient level of competence on educational technology to guide students and to enhance quality of education provided in classroom.
-



**Europass  
Curriculum Vitae**

***Personal information***

First name(s) / Surname(s) **Emre ÇALIŞKAN**  
Address(es) Altındağ Mah. 151. Sok Emin Apt. No:23 K:2 D: 6  
Muratpaşa, Antalya / Turkey  
Telephone(s) +90 505 537 18 27  
Fax(es)  
E-mail [emre.ceupa@gmail.com](mailto:emre.ceupa@gmail.com) / em\_ca@windowslive.com  
  
Nationality Turkish  
Date of birth 19.04.1983  
Gender Male

***Work experience***

**Dates**  
Occupation or position held Teacher Trainer / EU Project Coordinator  
Name and address of employer Antalya Provincial Directorate of Education, Local Authority  
  
**Dates** 04.05.2012 – 09.06.2014  
Occupation or position held Project Expert  
Main activities and responsibilities

- EU Grants on LLL-Programmes
- Keeping the contacts with international partners
- Activities of research and administration

Name and address of employer	Governorship of Antalya, Antalya, Turkey
<b><i>Education and training</i></b>	
<b>Dates</b>	2012 – Onwards Masters Degree at Akdeniz University Faculty of Education English Language Teaching Department
	2001 – 2005 Bachelors Degree at Dokuz Eylül University Faculty of Education English Language Teaching Department
	1998 – 2001 Aksu Anatolian Teacher Training High School
<b><i>Level in national or international classification</i></b>	BA, MA
<b>Dates</b>	18.04.2010 – 22.04.2010
Title of qualification awarded	Techniques and Methodologies of Teaching English, ANKARA
Principal subjects/occupational skills covered	New Practical Methods and Techniques in Language Teaching (First Level)
Name and type of organisation providing education and training	Board Of Education
<b>Dates</b>	07.06.2010 – 18.06.2010
Title of qualification awarded	Techniques and Methodologies of Teaching English, ANTALYA
Principal subjects/occupational skills covered	New Practical Methods and Techniques in Language Teaching (Second Level)
Name and type of organisation providing education and training	Board Of Education
<b>Dates</b>	19.09.2011 – 30.09.2011
Title of qualification awarded	Teaching English Through Technology, Dublin / IRELAND

Principal subjects/occupational skills covered	Teaching English Through Technology
Name and type of organisation providing education and training	Prime Ministry
<b>Dates</b>	04.04.2011 – 08.04.2011
Title of qualification awarded	New Approaches to Language Learning: Suggestopedia, Sofia / BULGARIA
Principal subjects/occupational skills covered	Language Teaching and Learning through Suggestopedia - Desuggestopedia
<b>Dates</b>	09.05.2010 – 22.05.2010
Title of qualification awarded	Developing Oral Fluency, Exeter / UNITED KINGDOM
Principal subjects/occupational skills covered	Developing Oral Fluency
Name and type of organisation providing education and training	Prime Ministry
<b>Dates</b>	24.07.2006 – 04.08.2006
Title of qualification awarded	Certified Practitioner of Neuro-Linguistic Programming (NLP)
Principal subjects/occupational skills covered	NLP Techniques

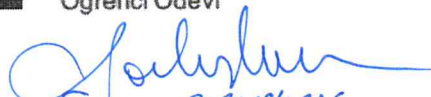
# A STUDY ON E-READINESS OF TEACHERS IN LANGUAGE CLASSROOMS


ORJİNALLIK RAPORU

% <b>17</b>	% <b>13</b>	% <b>7</b>	% <b>9</b>
BENZERLIK ENDEKSİ	İNTERNET KAYNAKLARI	YAYINLAR	ÖĞRENCİ ÖDEVLERİ

BİRİNCİL KAYNAKLAR

1	www.tojet.net İnternet Kaynağı	%2
2	digitool.library.mcgill.ca İnternet Kaynağı	%1
3	Summak, M. Semih, Murat BaÄYİÄ±bel, and Mustafa SamancÄ±oÄYlu. "Technology readiness of primary school teachers: A case study in Turkey", Procedia - Social and Behavioral Sciences, 2010. Yayın	%1
4	www.indiana.edu İnternet Kaynağı	%1
5	www.chipola.edu İnternet Kaynağı	%1
6	archive.org İnternet Kaynağı	%1
7	Submitted to Middle East Technical University Öğrenci Ödevi	<%1

  
Emre GALISKAN  
01.03.2017

  
Prof. Dr. Mustafa CANER  
01.03.2017