



**İNGİLİZCE ÖĞRETMENLERİNİN BİT
KULLANIM TUTUMLARINDA DİJİTAL
OKURYAZARLIK FAKTÖRÜ**

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Yüksek Lisans Tezi

Yabancı Diller Eğitimi Ana Bilim Dalı

2023

(Her hakkı saklıdır.)

T.C.
ATATÜRK ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ
YABANCI DİLLER EĞİTİMİ ANA BİLİM DALI
İNGİLİZCE EĞİTİMİ BİLİM DALI

**İNGİLİZCE ÖĞRETMENLERİNİN BİT KULLANIM TUTUMLARINDA
DİJİTAL OKURYAZARLIK FAKTÖRÜ**

(Digital Literacy as Factor in the Attitudes of EFL Teachers towards ICTs' Use)

YÜKSEK LİSANS TEZİ

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Erzurum
Temmuz, 2023

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Serpil DOĐAN tarafından hazırlanan “İngilizce Öğretmenlerinin Bit Kullanım Tutumlarında Dijital Okuryazarlık Faktörü” başlıklı çalışması 17/ 07 / 2023 tarihinde yapılan tez savunma sınavı sonucunda başarılı bulunarak jürimiz tarafından Yabancı Diller Eğitimi Ana Bilim Dalı, İngiliz Dili ve Eğitimi Bilim Dalında Yüksek Lisans tezi olarak kabul edilmiştir.

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ÜniversitesiLisansüstüEğitimveÖğretimYönetmeliĐi’ninilgilmaddelerindebelirtilenşartlarıyer
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17 /07 / 2023

Aslı Islak İmzalıdır

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ETİK VE BİLDİRİM SAYFASI

Yüksek Lisans Tezi olarak sunduğum “İngilizce Öğretmenlerinin BIT Kullanım Tutumlarında Dijital Okuryazarlık Faktörü” başlıklı çalışmanın tarafımdan bilimsel etik ilkelere uyularak yazıldığını ve yararlandığım eserleri kaynakçada gösterdiğimi beyan ederim.

17 / 07 / 2023

Aslı Islak İmzalıdır

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☐ Tezle ilgili patent başvurusu yapılması / patent alma sürecinin devam etmesi sebebiyle Enstitü Yönetim Kurulunun/.../.... tarih ve sayılı kararı ile teze erişim 2 (iki) yıl süreyle engellenmiştir.

☐ Enstitü Yönetim Kurulunun/.../.... tarih ve sayılı kararı ile teze erişim 6 (altı) ay süreyle engellenmiştir.

ACKNOWLEDGEMENT

Completing this study has been truly a marathon and I would like to thank those who supported me.

First of all, I would like to express my sincere thanks to my supervisor Assoc. Prof. Dr. Merve GEÇİKLİ, who guided me at every stage of my study, whose support I always felt with me, and who contributed greatly to the quality of my study with her professionalism, competence and brilliance.

I am grateful to the members of my thesis committee: Assoc. Prof. Dr. Ayşe MERZİFONLUOĞLU and Assoc. Prof. Dr. Veysel KARSLI their brilliant comments and suggestions.

I would also like to give special thanks to participants contributed and extended their valuable assistance.

Serpil DOĞAN

ÖZ

YÜKSEK LİSANS TEZİ

İNGİLİZCE ÖĞRETMENLERİNİN BİT KULLANIM TUTUMLARINDA DİJİTAL OKURYAZARLIK FAKTÖRÜ

Serpil DOĞAN

Temmuz 2023, 96 Sayfa

Amaç: Bu çalışma, Artvin ilinde ilkokul, ortaokul ve lise kademelerinde görev yapan İngilizce öğretmenlerinin dijital okuryazarlık düzeyleri ile BİT'in İngilizce öğretim uygulamalarına entegrasyonuna yönelik tutumları arasında anlamlı bir ilişki olup olmadığını araştırmayı ve ayrıca İngilizce öğretmenlerinin BİT entegrasyonuna yönelik tutumlarının arkasındaki nedenleri açıklamayı amaçlamaktadır.

Yöntem: Bu çalışma, nicel ve nitel yöntemlerin birlikte uygulandığı sıralı açıklayıcı araştırma desenine dayanmaktadır. Çalışmaya Artvin ilinde bulunan ilkokul, ortaokul ve liselerde görev yapan 48 İngilizce öğretmeni katılmıştır. Nicel verilerin toplanmasında Dijital Okuryazarlık Ölçeği ve İngilizce Öğretiminde BİT Kullanımına İlişkin Tutumlar Ölçeği kullanılmış, nitel verilerin toplanmasında ise yarı yapılandırılmış görüşmelerden faydalanılmıştır. Öğretmenlerin dijital okuryazarlık düzeylerini ve BİT'nin İngilizce öğretimine entegrasyonuna yönelik tutumlarını belirlemek için 48 İngilizce öğretmenine anket uygulanmıştır. Sonuçlar SPSS ile analiz edilmiştir. Veri dağılımının normalliğini test etmek için Kolmogorov-Smirnov testi kullanılmıştır. Ayrıca, İngilizce öğretmenlerinin dijital okuryazarlık düzeyleri ile BİT'in İngilizce öğretimine entegrasyonuna yönelik tutumları arasındaki ilişkiyi araştırmak için Pearson Korelasyon testi yapılmıştır. Araştırmanın nitel bölümünde ise 12 katılımcı (Dijital Okuryazarlık Ölçeği puanlarına göre kategorize edilmiş 6 dijital yerli ve 6 dijital göçmen İngilizce öğretmeni) yarı yapılandırılmış görüşmeler için seçilmiş ve veri analizinde “tanımlama, analiz, yorumlama” adımları izlenmiştir.

Bulgular: Sonuçlar, İngilizce öğretmenlerinin yüksek düzeyde dijital okuryazarlığa sahip olduğunu ve çoğunlukla İngilizce öğretiminde BİT kullanımına karşı olumlu tutumlara sahip olduklarını göstermiştir. İngilizce öğretmenlerinin dijital okuryazarlık yeterlilikleri ile BİT'in İngilizce öğretimine entegrasyonuna yönelik tutumları arasında anlamlı bir ilişki vardır.

Sonuçlar: Anket ve görüşmelerden elde edilen bulgulara göre, İngilizce öğretmenlerinin dijital okuryazarlık düzeylerinin nispeten yüksek olduğu ve çoğunlukla İngilizce dil öğretiminde BİT entegrasyonuna yönelik olumlu tutumlara sahip olduğu sonucuna varılabilir. Ayrıca hem dijital yerli hem de dijital göçmen İngilizce öğretmenleri, yabancı dil öğretim uygulamalarında dijital araçların ve BİT entegrasyonunun önemi konusunda hemfikirlerdir. Mevcut çalışmanın bulgularının, İngilizce öğretimi bağlamında öğretmenlerin dijital okuryazarlığı ve BİT entegrasyon becerilerini artırmadaki gelişmelere ve düzenlemelere katkıda bulunacağına inanılmaktadır.

Anahtar Kelimeler: Tutum, inançlar, dijital okuryazarlık, dijital araçlar, İngiliz Dili Eğitimi, BİT, BİT entegrasyonu, teknik

ABSTRACT

MASTER'S THESIS

DIGITAL LITERACY AS FACTOR IN THE ATTITUDES OF EFL TEACHERS TOWARDS ICTS' USE

Serpil DOĞAN

July 2023, 96 Pages

Purpose: This study aims to investigate whether there is a significant correlation between English teachers' digital literacy levels and their attitudes to ICT integration into English language teaching practices in addition to explaining the reasons behind the attitudes to ICT integration of primary, secondary and high school ELT teachers in Artvin province in the Turkish EFL context.

Method: This study was based on a sequential explanatory research design, in which quantitative and qualitative methods were applied together. The participants were 48 English teachers working at primary, secondary and high schools in Artvin province. Digital Literacy Scale and Attitudes to ICT Usage in ELT Scale were used in order to collect quantitative data and semi-structured interviews were conducted to collect qualitative data. Scales were applied to 48 ELT teachers in order to determine their digital literacy levels and their attitudes to ICT integration into ELT. The results were analyzed via SPSS. Kolmogorov-Smirnov Test was used in order to test the normality of data distribution. Furthermore, Pearson Correlation Test was conducted in order to investigate the relationship between English teachers' digital literacy levels and their attitudes to ICT integration into ELT. In the qualitative part of the study, 12 participants (6 digital native and 6 digital immigrant English teachers categorized according to their Digital Literacy Scale scores) were selected for semi-structured interviews and "description, analysis, interpretation" steps were followed in data analysis procedure.

Findings: The results showed that English teachers had high levels of digital literacy and they mostly had positive attitudes to ICT usage in English language teaching. There is a significant correlation between English teachers' digital literacy competences and their attitudes to ICT integration into ELT.

Conclusion: In accordance with the findings obtained from scales and interviews, it can be concluded that English teachers' digital literacy levels were relatively high and they had mostly positive attitudes to ICT integration in English language teaching. Moreover, both digital native and digital immigrant English teachers agreed on the significance of digital tools and ICT integration in foreign language teaching practices. It is believed that the findings of the current study will contribute to developments and adjustments in increasing digital literacy and ICT integration skills of teachers in EFL context.

Keywords: Attitude, beliefs, digital literacy, digital tools, ELT, ICT, ICT integration, technology, technique

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ABBREVIATIONS

EFL	: English as a Foreign Language
ELT	: English Language Teaching
FLE	: Foreign Language Education
ICT	: Information and Communication Technology



CHAPTER ONE

Introduction

With the coronavirus (COVID 19) epidemic, which was first detected in China's Wuhan observations in December 2019, our world had to deal with fundamental changes and features in many areas such as education, communication, health or transportation (Alhuamid, 2020). One of the most negative effects of pandemic conditions is education and training practices. According to the statistical results of the United Nations Educational, Scientific and Cultural Organization (UNESCO), approximately 1.9 billion students remained away from face-to-face education during the pandemic process (UNESCO, 2020). As a result of the swift shift to distance education practices, online platforms such as Zoom and Google Classroom were launched in many countries in order to meet the educational needs of students. During the pandemic process, many web-based content such as EBA, TRT-EBA TV, which was put into service by the Ministry of National Education, were produced and used within the scope of distance education in Turkey. Teachers and users carried out distance education activities using the Zoom operating system. This rapid transition from face-to-face education to online education has led to many radical changes. Homeschooling has given a new shape to both teaching and teaching for students. Traditional lecture methods such as teacher-oriented approaches or methods lost their significance in this process and technology-supported lecture practices gained importance. In the last decade, there are many studies recommending the integration of information technologies into course contents (Gilakjani, 2017; Karşı, 2022; Merzifonluoğlu & Tulgar, 2022; Saritepeci, 2019; Singhal, 1997).

Like many branches, foreign language teachers have been exposed to the adaptation process to technological education teaching materials and digital education methods in today's world, where distance education activities and digital learning suddenly gain importance (Demir, 2021). Without providing any detailed or special training, foreign language teachers had to adapt their teaching strategies and methods effectively to digital learning environments (Schleicher, 2020). In line with 21st century skills, English teachers are expected to effectively use web 2.0 tools in foreign language teaching, online platforms that support four basic language skills (listening, speaking, reading and writing), and digital content that fosters language learning. In this context, foreign language teachers' digital literacy levels, their ability to use technology effectively, their attitudes and thoughts towards web-based language teaching

and the use of ICT are among the important factors in increasing the quality of today's language teaching practices.

The Aim of the Study

The main purpose of this study is to explain the relationship between English teachers' digital literacy levels and their attitudes towards ICT usage in foreign language education by questioning whether there is a significant correlation between the digital literacy levels of English teachers and their attitudes towards ICT use and investigating the reasons for the ICT usage attitudes of teachers with different digital literacy in this process where digitalization in education has become widespread with the integration of distance education activities and information communication technologies into education.

Although there have been many studies that investigate the digital literacy levels of English teachers and their ICT use separately, there have been few studies that aim to explain the relationship between digital literacy level and ICT use attitudes of English teachers. In this regard, the digital literacy levels of English teachers working at primary, secondary and high school levels in Artvin City Center and their attitudes to use ICT in foreign language education were determined and the relationship between them was explored, and then the findings of the interviews were analyzed in a multi-faceted way to reach the reasons for this situation. Therefore, the general research question and sub-research questions for quantitative and qualitative dimensions that guided the study were as follows:

How do the qualitative results collected from the interviews about the use of ICT in foreign language education with English teachers with different digital literacy levels working in Artvin province help in explaining the quantitative results explaining the relationship between the digital literacy levels of English teachers in the same context and their attitudes towards the use of ICT?

Quantitative Part

1. What is the digital literacy level of English teachers at primary, secondary and high school levels in Artvin?
2. What are the attitudes of English teachers at primary, secondary and high school levels towards the use of ICT in foreign language education in Artvin?
3. Is there a significant relationship between the digital literacy levels of English teachers at primary, secondary and high school levels in Artvin and their attitudes towards ICT use in foreign language education?

Qualitative Part

1. What are the evaluations of English Teachers with different digital literacy levels (digital native and digital immigrant) at primary, secondary and high school levels regarding the use of ICT in foreign language education in Artvin?

Conceptual Framework

The new generation was born into a digital world which has been surrounded with technology in almost every part of the life (Iivari et al., 2020). The way the young generation expresses themselves or the way they communicate and share is intertwined with the digital world. Prensky (2001) names today's children as "digital natives". Everyday activities such as reading, watching movie, listening to music or even making conversation are preferred through online tools. Therefore, the demand for digital tools and technological innovations in the field of education nowadays result not only from the negative conditions caused by the pandemic, but also from the high motivation and positive attitudes of today's generation students towards digital world and technology. As a result, the popularity of e-learning, distance education practices and digital teaching tools has commonly increased. E-learning offers a personalized education opportunity based on web-based and digital technologies, which can be shaped or revised according to the individual differences of students (Rodrigues et al., 2019). The ICT use in educational practices has a crucial role in developing students' critical thinking, independent and lifelong learning skills with a student-centered approach (Bol & Garner, 2011; Damary et al., 2017). Distance education has become an accepted system today with its flexibility, adaptability, suitability for individual differences, being independent and relatively inexpensive (Kwapong, 2009; Viberg & Grönlund, 2015).

Using web-based teaching techniques and technological materials in foreign language instruction has a favorable impact on course quality, teaching process and learning outputs. The results of the previous studies on teaching foreign languages have suggested that using digital tools and the Internet is one of the most enjoyable approaches to teach or learn a language (Wang, 2005). To improve the quality of global education and communication, there has been a rapid shift in the last 30 years from technology integration computer-assisted language learning process to ICT integration process in foreign language teaching (Dudeney & Huckley, 2012). Today, in our globalizing world, there is a great need to include information and communication technologies in foreign language education (Renau, 2016). Information and communication technologies have paved the way for radical changes in language teaching by developing the components of language teaching practices' environment and climate (Sumardi, 2020; Poláková, 2019; Poudel, 2020; Young, 2003). Innovative educational approaches have

been utilized in recent years to enhance learning outcomes and students' proficiency in the target language, such as computer assisted learning (Thomas et al., 2012) and mobile learning (Brown & Green, 2012). The widespread and easy accessibility of the Internet has also affected English language education practices. Thanks to the Internet, students learning English have had the opportunity to communicate with native English speakers all over the world and to easily access authentic resources in the target language in a short time (Yang & Chen, 2007). In addition, they have had the opportunity to understand the social and cultural elements and perspectives of the target language communities (Hockly, 2015). According to numerous studies in the literature, using technology for language instruction has a good impact on students' motivation, interaction, critical thinking, and language abilities while also lowering anxiety and stress levels (Hoven, 1999). Foreign language instruction and ICT are now inseparable partners (Naderian, 2018; Sherine, 2020; Sidgi, 2017; Singhal, 1997). By having a favorable impact on students' language proficiency, vocabulary, and pronunciation abilities in the target language, integrating ICT into language teaching contexts enhances the quality of learning results. Globalization and digital tools have also made differences in foreign language materials, content and context (Chun et al., 2016). ICT-enhanced language learning activities and frequent computer use provide students with convenient access to visual, audio, and written information resources (Chun & Plass, 2000). Recently, the availability and widespread use of teleconference calls, e-mails, forum chats, online meetings, seminars, conferences and social media platforms have brought new perspectives to foreign language teaching and learning (Kukulska-Hulme, 2009).

With the advancement and development of digital technologies, the concept of "e-learning", which includes learning environments beyond classroom environments, has emerged (Tavangarian et al., 2004). The development of Web 2.0 tools and the prevalence of e-learning platforms have led to the emergence of language learning communities and markets (Hockly, 2015). Today, foreign language students make great use of smartphone applications, websites and social media platforms to improve their language skills. Thanks to the flexibility, productivity and communicative opportunities they provide, these user-friendly platforms have highlighted the necessity of technology and digital content integration into language learning environments.

All of these studies demonstrate that, when taking into account current educational methods and strategies, the use of ICT, digitalization, and e-learning environments has become extremely widespread in language teaching, as well as in many other fields. The results of many research are presented to support the idea that the use of information technology in foreign language instruction benefits learning activities, student achievement, and motivation.

Therefore, the ability of English teachers to adapt the teaching methods, techniques and strategies they use to web-based and technology-supported content is of great importance in foreign language teaching. Teachers' digital literacy levels are a deciding factor in improving the quality of web-based language learning settings in this process, where ICT enabled language teaching techniques to become highly widespread.

Related Studies

There are many discussions in the literature on how to teach English in order to increase success in language teaching (Al-Hazmi, 2003). The majority of these studies refer to how effective teachers' professional development levels, perceptions of competence and professionalism are in teaching English. In our age, education systems face weak conditions and inequalities in their efforts towards digitalization, but language teachers have been able to bridge these negative conditions and digital divides (Valverde-Berrocso et al., 2020). As a result of their study, Solanki and Shyamleel (2012) suggested that technology and the use of ICT have greatly changed language teaching practices. Technology facilitates English learning by enabling students to participate actively in classroom activities (Pourhosein, 2017). In this context, it is of great importance for teachers to integrate their ICT skills into the language teaching methods and techniques they use (Solanki & Shyamleel, 2012). There is not the slightest doubt that language learning resources accessed with technology support will positively affect student and teacher motivations (Yurt & Cevher-Kalburan, 2011). The use of ICT offers rich content in many subjects such as preparing materials, accessing pedagogical theories and teaching strategies (Karşlı, 2022). In addition, the ability to use ICT is very important in converting ready-made materials into materials such as videos, images or presentations used for language teaching (Volman, 2005). The effective use of technological platforms in language teaching significantly increases individual and group learning. In recent years, web-based and technology-supported language teaching models have increased their popularity in the field significantly (Warschauer, 1996). The contribution of the use of ICT to the field of English language education is too important to be underestimated, because the use of ICT offers solutions to many important problems such as access to authentic materials, improvement of time and quality for feedback, student autonomy and motivation, which have been discussed for many years (Braul, 2006; Salaberry, 2001).

The use of ICT is widely preferred in language teaching today, and the efficiency and quality of ICT use can be increased with a high level of digital literacy. Computer use anxiety was defined by Gaudron and Vignoli (2002) as the feeling of anxiety and anxiety felt due to the use of computers and technology by the individual. In a study using both qualitative and

quantitative data, Albirini (2004) conducted a study on the technology use of 326 English teachers working at a high school in Syria. According to the results of the research, although the participants accepted that the importance of ICT use in English language teaching practices is undeniable, the teachers' computer use and informatics education levels were found to be quite low. In another study on the attitudes of English teachers towards using information technologies in foreign language classes, the participants' computer use concerns, interests, experiences, and finally their digital literacy were investigated. The research shows that only introducing information technology tools to teachers does not conclusively transfer teachers' ICT usage skills to language classroom environments (Gilakjani & Leong, 2012). On the other hand, there are also studies showing that foreign language teachers reflect English lesson teaching techniques and ICT usage skills efficiently. Huang et al. (2017) conducted a qualitative study using individual interview technique to determine the attitudes and acceptances of English teachers towards the integration of ICT use into foreign language lessons in China. The data obtained as a result of the interviews with 14 teachers working in different institutions show that teachers have a positive approach towards the use of ICT in the classroom environment. Participants stated that they described the use of technology as useful, pleasant, effective in modernization and as a resource that increases interaction among students. In another study conducted in China, the factors affecting the tendency of English teachers to use ICT in their course contents were tried to be determined. As a result of the research, digital self-efficacy levels and suitable physical conditions are among the most important factors that increase teachers' willingness to use ICT (Sun & Mei, 2020). In a study conducted with pre-service English language teachers in Hong Kong, interviews were conducted to determine their perceptions and attitudes towards technology integration in lesson activities after examining the participants' readiness for ICT use. Most of the pre-service teachers stated that the use of ICT increased the dynamic power of the course content and stated that internal factors rather than external factors were more decisive in the effective integration of ICT use. In other words, the participants of the research stated that teachers with a high perception of self-efficacy in technology use would be more successful in adapting language teaching methods and techniques to digital environments compared to teachers with low self-efficacy (Park & Son, 2020).

The use of technology and digital tools in language teaching, the integration of ICT use into lesson activities, and teachers' digital literacy levels are issues that maintain their importance in the English language education literature. Many studies support the idea that the use of ICT in language teaching enriches foreign language teaching skills, improves student autonomy and increases language learning success at a high rate. In this context, the digital

literacy levels of English teachers, their attitudes towards ICT use and their ability to adapt educational materials to language learning environments is a very important issue for English language education literature.

Significance

The main purpose of this study is to determine the relationship between the digital literacy levels of English teachers and their attitudes to use ICT in foreign language education, and to explain the relationship by examining the reasons for the ICT use attitudes of English teachers whose digital literacy levels differ. In this context, the main contribution to foreign language education in general and foreign language education in Turkey in particular is to determine the digital literacy levels of English teachers in today's world, where technology is used in almost every field, to raise awareness in the context of digital literacy, to encourage web-based language teaching and ICT. The aim of this study is to determine their attitudes towards the use of and to examine the reasons for this situation. According to the researcher's knowledge, although there are studies to determine the digital literacy of foreign language teachers for distance education and web-based teaching applications, which are becoming increasingly widespread with the effect of pandemic conditions, there is no study examining the relationship between the use of ICT and the attitudes of digital native and digital immigrant teachers and examining the reasons. Thanks to the relationship between the use of ICT and the level of digital literacy, which will be examined in this study, and the findings on the reasons for this situation, inferences can be made that will open the door to the determination of the factors that will contribute to the improvement of attitudes towards digital literacy and ICT use. Kaban and Aşçı (2021), in their research, concluded that high digital literacy levels in the distance education process increase the success in language teaching. This research is important because of its contribution to increase the awareness of foreign language teachers in digital literacy and to improve the quality of their attitudes towards the use of ICT, thereby to improve the success and outcomes of language education.

Transferability

In this process, where distance education activities and digital learning are gaining increasing importance, this study aims to determine the attitudes of digital native and digital immigrant English teachers towards the use of ICT and to examine the reasons for this situation in depth. It will guide practitioners, educators, curriculum and program development experts in the field in the context of disseminating based language teaching approaches. At the same time, the points where teachers need to improve their motivation towards web-based language

teaching applications and the use of ICT and digital literacy level in foreign language learning success will be determined, and it will give an idea in the determination of strategies to eliminate the negative conditions that create this situation.

Assumptions

It was assumed that the participants would voluntarily take part in the study and reveal their opinions, ideas and attitudes about their digital literacy level and ICT use in foreign language educational practices. Moreover, it was assumed that they answered the questions of the Digital Literacy Scale and Attitudes of ICT Use Scale honestly without being affected by anyone or anything. Another assumption was that participants who answered interview questions were provided with safe, comfortable and objective conditions in which they could express their opinions related to the study in a clear and honest way. Moreover, it was assumed that the participants would permit the researcher to record the interviews by signing consent forms before the interviews. Finally, it was assumed that participants would evaluate their digital literacy level and express their opinions about ICT use in EFL classrooms so that it can be revealed the underlying reasons for the relationship between digital literacy levels and ICT uses of English teachers.

Limitations

The study consists of some limitations in terms of a couple of aspects. Since this study aimed to explain the relationship between the digital literacy levels and attitudes of English teachers towards ICT use in EFL classes, more valuable data could have been collected if English teachers' practices related to ICT use in EFL classes had been observed. However, observation could not be conducted due to the limited time and allowance constraints. Future research may include observation as data collection tool in addition to scales and semi-structured interviews. Additionally, the number of the participants who were interviewed could be increased so that deeper explanations for the reasons of the relationship between the digital literacy levels and attitudes of English teachers towards ICT use in EFL classes could have been obtained. Semi-structured interviews could be conducted with more English teachers if enough time and another researcher were available in the data collection process. Forthcoming studies may include more than one researcher in semi-structured interviews so that the objectivity, quality and reliability of the data could be protected in a more impartial way. Another limitation of the study is that the study participants consisted only of English teachers located in the city center of Artvin. If English teachers in other cities in the region were also included in the study, it would have been possible to reach more enriched and valid results.

Delimitations

This study was carried out in Artvin province in order to reveal the relationship between the digital literacy levels and attitudes of English teachers towards ICT use in EFL classes and to explain the reasons behind this situation. Artvin is a city with a high English average in English classes in high school entrance exams. Working with English teachers in Artvin has made an important contribution to the literature in order to identify the factors underlying its high English success. Investigating teachers' digital literacy levels and their attitudes towards the use of ICT in this area is an important contribution to increase students' English course success in the future and to overcome problems and deficiencies related to foreign language teaching. Furthermore, since there is no ELT department at university level in Artvin, it was more convenient to carry out the study at primary, secondary, and high school grades. Thanks to the participation from different grades of schools, it was possible to compare the data results in terms of different grades.

Definition of Terms

Digital Literacy

Oxford Dictionary (2023) explains this term as “*the ability to use digital technology, communication tools or networks to locate, evaluate, use and create information*”.

ICT

Cambridge Dictionary (2023) defines this term as “*the use of computers and other electronic equipment to store and send information*”.

E-Learning

This term refers to providing conditions that students can take courses from their digital devices without having to attend face to face classes.

ELT

This term is explained in Cambridge Dictionary (2023) as “*the teaching of English to speakers of other languages*”. In Oxford Dictionary (2023), it is explained as “*the teaching of English to people for whom it is not the first language*”.

EFL

Cambridge Dictionary (2023) explained EFL as “*the teaching of English to students whose first language is not English*”. In Longman Dictionary (2023), it is explained as “*the teaching of English to people whose first language is not English, and who do not live in an*

English-speaking country". Collins Dictionary (2023) explained this term as "*the teaching of English to people whose first language is not English*".

EFL Context

This term includes items such as the environment, framework, situation, and circumstances in which EFL teaching takes place.

FLE

This term means Foreign Language Education. It is explained in Cambridge Dictionary (2023) as "*the teaching of foreign language to the speakers whose native language is different from the target language*".

Attitudes

Cambridge Dictionary (2023) refers to this term as "*a feeling or opinion about something or someone, or a way of behaving that is caused by this*". Oxford Dictionary (2023) refers to this term as "*the way that you think and feel about somebody/something; the way that you behave towards somebody/something that shows how you think and feel*"

Beliefs

Cambridge Dictionary (2023) explained this term as "*the feeling of being certain that something exists or is true*". Oxford Dictionary (2023) explained this term as "*a strong feeling that something/somebody exists or is true; confidence that something/somebody is good or right*".

Techniques

Cambridge Dictionary (2023) explained this term as "*a way of doing something that needs skill or thought*". Oxford Dictionary (2023) refers to this term as "*a particular way of doing something, especially one in which you have to learn special skills*".

Practices

Cambridge Dictionary (2023) explained this term as "*the act of doing something regularly or repeatedly to improve your skill at doing it*". Oxford Dictionary (2023) explained this term as "*doing an activity or training regularly so that you can improve your skill; the time you spend doing this*".

CHAPTER TWO

Literature Review

Educators' digital literacy competencies are a requirement for teachers who want to offer a classroom environment that appeals to today's generation of students. There are many studies on the digital literacy levels of English teachers and the role of the digital literacy factor in foreign language teaching. Characteristics of digitally literate and digitally illiterate teachers and the determination of the factors underlying these differences are also a popular topic in the ELT context. Whether technology integration in language teaching practices affects language learning outcomes positively, and the advantages and disadvantages of transferring digital literacy to course environments have been examined by many researchers.

In addition to digital literacy competencies, the use of ICT in language teaching is also a subject of discussion in the literature with its definition, history, advantages and disadvantages. The use of ICT also includes digital platforms with many sub-components and which ICT types are used more frequently in language teaching and the role of these uses in foreign language teaching has an important place in the EFL. In both domestic and international studies, English teachers' ICT usage attitudes and their motivations for ICT integration in language teaching are frequently examined.

The Role of Digital Literacy in ELT

Literacy has significantly changed the meaning it covers due to the rapid and radical changes in the field of communication in our developing and changing world (Beckingham & Nguyen, 2012). The concept of literacy was previously defined as the ability to understand and decode written language, but today the scope of this definition is rather limited given the wide range of literacy proficiency (Churchill, 2009). With the explosion of technology and digital evolutions, traditional literacy has evolved into the concept of multiple literacy (Cloonan, 2010; Cope & Kalantzis, 2000). In other words, the digital age we live in has changed the traditional concept of literacy and expanded its borders.

The concept of digital literacy, which is a relatively new concept that has been emphasized after the technological possibilities offered by the 21st century, was first defined classically and simply by Gilster (1997). Gilster (1997) defined digital literacy as the ability to comprehend and process data presented by worldwide web (www) sources.

While defining digital literacy, Gilster listed the equally important competences covered by this concept under four elements: compiling information (organizing data or resources obtained with digital tools and evaluating it from a personal perspective), evaluating information content (an idea of the quality and characteristics of the obtained data), Internet search (using online resources, search engines and electronic databases efficiently and effectively to access in-depth information on a particular topic), and hypertext navigation (the ability to navigate effectively through complex linked chains). Taking these aspects into account, Martin (2006) proposed a more comprehensive definition, emphasizing the role of electronic media in digital literacy: “Digital literacy, digital tools and possibilities of individuals to enable constructive social action and reflect on this process, digital resources in the context of specific life situations. identify, access, manage, integrate, evaluate, analyze and synthesize new knowledge, create media expressions and communicate with others” (p. 16). On the other hand, Barrette (2001) defines digital literacy as the ability of human beings to carry out basic computer use processes and the ability to produce solutions to existing problems by using this skill in a critical and creative way. Both definitions presented by Barrette underline that digital literacy consists of the ability to competently manage electronic information in order to increase professionalism, productivity and creativity, as well as the requirements for efficient, productive, rich and complete control of information and communication technologies. Echoing Lanshear and Knobel (2006) defined digital literacy as cultural, cognitive, communicative, and creative literacy. Gilster's (1997) emphasis on the social aspect of digital literacy implies that this concept has a deeper meaning far beyond one-way technological competencies. Similarly, Son et al. (2011) defines digital literacy as being able to competently control digital tools for communication and interaction in a society, while Eshet (2004) argues that digital literacy is a more complex definition and is related to high-level skills. A number of critical, social and motor skills are required in order to use and manage these technological opportunities and to maintain a professional presence in digital media. Since the information in digital environments cannot always be obtained from reliable sources, taking a critical attitude in digital navigation and research processes is of great importance in terms of accessing reliable and valid information. Similarly, Sharma (2017) argues that digital literacy is closely related to one's ability to actively utilize digital tools for interaction, communication and networking. By making use of their socio-emotional skills, digitally literate individuals can consciously structure and manage their data on digital platforms, build communication bridges and share them (Eshet, 2004). When all these definitions of digital literacy in the literature are examined, it can be concluded that the concept of digital literacy is both a technology-dependent and a

technology-independent phenomenon that needs to determine one's own methods in order to reliably obtain the targeted results from educational environments (Briggs & Makice, 2011).

In order for a teacher to be qualified as digital literate, it will be a guiding method to examine the abilities of the dynamically changing and developing digital literacy model put forward by Eshet (2012). Eshet (2012) argues that visual, production, branching, information management and socio-emotional skills are an integral part of the concept of digital literacy. A study conducted by Eshet and Chajut (2009) shows that digital information production and management competencies can improve significantly under long-term exposure to the use of ICT.

Another important skill to have in order to study digital literacy is branching. This skill can be described as the ability to process and manage digital data that exist in the Internet environment and branches, to analyze the information obtained from a hypertextual source and to reproduce information (Balcytiene, 2003). In this regard, access to inferences that 21st century entities need to have multidimensional thinking and application controls to follow a reliable path in the process of collecting, organizing and managing information obtained through web-based data sources. It is vital for 21st century teachers to have high-level information collection, analysis and control certificates so that the information obtained in the digital environment can be presented in a useful way in learning and teaching practices.

Socio-emotional skills are another mandatory skill set that digital literacy teachers of the 21st century must acquire, as the opportunity to participate in numerous online discussions as well as an online environment for digital interaction and communication has been provided by ICT (Boyd, 2007; Roblyer et al., 2010). Digitally literate teachers need to be able to share information, comments and necessary feedback about virtual communication ways with their students in an effective and efficient way by making use of their digital socio-emotional skills. Real-time digital skills are called 'multitasking' in ICT terminology and are related to individuals' ability to perform various operations simultaneously with a fixed and clear focus (Monsell, 2003). Therefore, today's digital literacy teachers need to pay attention to more than one digital stimulus at the same time in order to clearly process and transfer a large amount of rapidly transmitted audio-visual and textual information displayed on digital software and electronic tools in order to achieve various goals in education and training practices. As Brown (2005) argues, students born in the digital age need a more student-centered and active participation approach in education, and therefore teachers now need to adopt technology-led constructivist teaching strategies to a large extent when dealing with these tech-savvy students because the new generation students tend to actively participate in the process and acquire

knowledge through collaborative learning. Crittenden (2002) also suggests that digital age students prefer to participate in learning activities that involve a high level of social communication and interaction. In addition, it has been suggested by Skiba and Barton (2006) that face-to-face lessons can be enriched by educators with some additional supportive Internet-based activities that can highlight learners' communicative and interactive learning competencies. Such collaborative learning activities involving ICTs are only possible for 21st century students if digitally literate teachers can integrate their skills into the classroom environment. As an important note, Maher (2019) mentions that digital world students should be guided by teachers in classroom settings on how they can advance their digital literacy and how they can use these competencies in a positive way. In this way, students will be able to effectively benefit from digital literacy basic skills in their professional and academic plans. In this context, in order for the teachers of the 21st century to maintain their professional status in the digital age, it is not only necessary to have digital literacy skills, but also to be able to share their knowledge about using these skills in various educational and academic tasks with their students.

In addition, Guðmundsdóttir et al. (2014) argue that digital literacy levels of teachers should be distinctive compared to other occupational groups, since digitally literate teachers should directly model the effective use of ICT in classroom environments. In order to reduce the concept of teacher digital literacy to some basic components, the Norwegian ICT Center has grouped the basic skills that enable teachers to perform in professional environments as “generic digital competences, didactic generic competences and vocational digital competences”. In this context, generic digital competences cover the use of basic digital tools, while didactic digital competences include pedagogical strategies to be used in teaching environments through the use of ICT. Additional skills for the teaching profession, such as creating lesson plans, assessment and evaluation, fall under the category of professional-oriented digital competence. In the context of digital literacy teaching, these components show that 21st century educators need to manage and apply ICT skills in teaching processes in a methodical and strategic way (Kelentrić et al., 2017).

Recently, the question of whether the age of individuals has a direct determinant effect on their digital competence has been a popular discussion topic frequently raised by academics and researchers. The main starting point of this discussion can be accepted as the arguments of Prensky (2001), who claims that 21st century students are separated from the learners of past generations due to rapid developments in the technological field. Learners born in the age of the Internet and digital technologies, with high-level information and communication

technologies being a part of our lives. Thanks to their digital abilities, they comprehend, process and share information quite differently from their parents and teachers who belong to a more traditional generation. These new generation of individuals are called “digital natives” because they grew up with the technological opportunities offered by the 21st century and are skilled in using these opportunities for various purposes in different environments of their lives, while the rest are called “digital immigrants” because they met and adopted the use of ICT afterwards. Although digital immigrants are positioned as a generation that has adapted to a certain level of technology use, they show some obvious shortcomings when compared to digital natives (Guo et al., 2008).

According to the underlying argument of Prensky's (2001) research, digital immigrant teachers fall short of raising a generation that thinks, communicates and interacts. It is important to note that new generation students process information through the use of ICT and therefore use a different language than digital immigrant teachers. Unfortunately, the educational strategies and techniques that digital native teachers believe as appealing to today's new generation students could not go beyond the traditional methods. Prensky (2001) recommends that teachers need to update their digital knowledge, practices, and competencies in order to actively engage and keep up with these tech-savvy students in their educational activities. Understanding the needs of students of the digital age and trying to meet these needs technologically is of vital importance in 21st century education. Digital immigrant teachers need to closely follow up-to-date technological teaching practices and eliminate deficiencies in their technical competencies (Helsper & Eynon, 2010).

According to the features of digitally literate people's assumptions, which relate the age of individuals to their digital competencies, the generation born between 1981 and 1996, commonly referred to as the 'net generation' or 'millennial generation', belongs to the Y generation class of teachers, while those born after 1997 and sometimes 'centennials' or 'iGen' are included in the Z generation class as they were born into a world surrounded by advanced information and communication tools of the 21st century. Therefore, the new generation is expected to master digital skills and be talented at using them for their intended purposes. On the other hand, X generation teachers born before 1980 can be called digital immigrants and may experience some difficulties in effectively integrating their so-called ICT usage skills into educational environments and in presenting the student-centered digital learning environments that 21st century students need. Therefore, it is necessary to examine and compare the characteristics attributed to students and teachers belonging to different generations in the literature. The so-called digital native group is equipped with advanced digital tools of the 21st

century and exposed to the worldwide global network, so they are expected to demonstrate high-level skills in daily, educational and academic activities. Digital natives are a group that prefers to use social media platforms for communication and interaction, performs well in web-based online environments, and effectively uses search engines suitable for the targeted information collection type. (Yong et al., 2016). Digitally literate people are skilled at surfing and browsing the Internet to access information and can efficiently utilize multitasking technologies in online environments (Helsper & Eynon, 2010). They are considered to have complex and comprehensive competencies and level of knowledge regarding the use of ICT (Bennett et al., 2008) and to be able to implement methods of using technological opportunities more efficiently (Dingli & Seychell, 2015).

On the other hand, digital competencies possessed by digital immigrant individuals are associated with a different set of characteristics. Although it is said that these people are 'foreign' to the world of technology and the high-level information and communication technologies of the modern age, and that they have adopted these technological opportunities much later than the Y and Z generations, they have been exposed to these opportunities at some point in their lives. Since they are not as competent as digital natives at using Internet facilities, social networks and online platforms, they cannot speak the same language with younger generations and have difficulty keeping up with developing technological innovations (Kurt et al., 2013). While digital immigrants avoid coping with a technical problem out of fear of harming them, digital natives can easily find solutions to these problems (Rikhye et al., 2009). Compared to digital immigrants, digital natives adapt to current technologies much faster and can transfer them to daily use easily (Bennett et al., 2008). Digital immigrant teachers may prefer to practice face-to-face in a real physical environment rather than communicating in a virtual environment or applying the collaborative learning outcomes they aim to establish among students in an online environment (Riegel & Mete, 2018). Since the technological possibilities and digital characteristics of the period in which they were born and grew up differ, it can be observed that there is a digital gap between the two groups when the digital literacy levels and ICT use of these generations are examined (Uygarer et al., 2016). However, some experts either completely oppose or doubt the existence of such a generational divide in terms of individuals' digital literacy levels, since it is improbable to assume that all digital natives are capable of using technological tools to their full potential and skill. At the same time, it may not be correct to generalize all digital immigrants as non-expert novice users of digital tools (Kurt et al., 2013). Although individuals born after the 1980s are considered 'digital natives' as previously suggested by Prensky (2001), it is stated that some individuals do not fully carry the characteristics of digital natives. Experts underline that the differences in technological

competence between digital native and digital immigrant groups have been gradually decreasing in recent years (Helsper & Eynon, 2010).

When the current literature is examined, it is seen that many studies dealing with digital literacy focus on investigating the level of teachers' digital literacy components and how self-sufficient and self-confident they feel in these components.

To start with a research example related to the subject, Benali et al. (2018) conducted a quantitative study of 160 English teachers in self-assessment about their digital competencies. A questionnaire from DigCompEdu was administered to the participants and the results of the research revealed that 42% of them were digitally literate at the interrogator (B1) level, and 27% had digital competence at the expert (B2) level. In other words, most of the participants had a high level of digital literacy proficiency. The sub-skills of digital literacy included the ability to use digital tools for didactic purposes and to reflect these skills to their professional and vocational practices. The digital toolkit subskill was a mastery owned by the largest population, while the digital content creation subskill was a skill possessed by the least number of participants. According to the results of the research, while age is an important factor in determining teachers' digital literacy levels, gender is not a variable that affects digital competencies.

Juurakko-Paavola et al. (2018) investigated the digital literacy practices of 217 English teachers working in Finland through a questionnaire. 117 English teachers stated that they considered their digital proficiency as Level 4 out of 5, on the other hand, there were very few teachers who think that they are at Level 1-2. Among the sub-dimensions of digital competences in this research were sub-skills such as presenting information by utilizing teachers' use of ICT, providing feedback on students' work, benefiting from technological applications that support individual learning regardless of time and place, using digital media effectively, and controlling and managing digital resources. At the end of this research, it was suggested by the researchers that English teachers need trainings that support the use of ICT with more digital content in order to meet their technical and pedagogical needs. In addition, in a case study conducted by Mirra (2019), after observations and interviews with pre-service and in-service teachers, it was concluded that teachers use digital software and applications in accordance with didactic purposes. The teachers in the study benefited from creative virtual activities in order to increase their students' interest and curiosity in the course content, to offer student-centered learning environments, and to support collaborative learning among students. As a result, digitally literate teachers were able to effectively use digital tools and ICT usage skills for didactic purposes.

The new generation of teachers should not only teach through technology, but also guide their students on how to use digital tools in a beneficial way. Digital technologies and web-based teaching applications are not only a tool used in today's education applications, but also a necessity. Teachers, who possess the most fundamental role in the teaching and learning process, are under the influence of the modern revolution brought about by the digital age we live in. The most basic need of all teachers who want to create a positive perception of competence on their students would be digital literacy (Basharat, 2019). As a result of the development of digital tools and technological opportunities, education in the 21st century is much more difficult than traditional education methods because the versatile abilities expected to be possessed by both students and teachers are great in number (Suwartono & Aniuranti, 2018). Teachers need to keep themselves up-to-date on technological developments and adapt their new skills to teaching environments (Trilling & Fadel, 2009). Therefore, there are explicit differences between 20th century educators and 21st century educators. Today, it is not enough for teachers to be physically present, teachers must be open to innovations and developments. Because the world of digital age students is quite different from the students in the 1980s, and therefore their learning styles are also different (Fitria & Suminah, 2020). In short, innovative technologies should be included in every targeted acquisition, and while these technologies are included in the teaching process, care should be taken to ensure that they are well organized (Dockstader, 1999).

Although the responsibility expected from teachers in digital literacy is high, EFL teachers, like many branches, are subject to a number of constraints such as lack of institutional support, a restrictive curriculum burden, parent demand conflicts and defective resources (Zheng & Borg, 2014). According to a UK review's group, some blocking devices, such as interference with test technology use and restrictive administrator pressures, entered the teacher's computer (Jones, 2004). Despite the demands of English teachers for education in the field of digital literacy, it was revealed that digital education in the education period was insufficient and did not attract attention (Hubbard, 2008; Kessler, 2006).

In the field of language teaching, although the choice of technological tools preferred by teachers, the material they create and the digital platform they use vary critically, they all agree on the inclusion of technology in classroom environments (Başal, 2015; Fitzpatrick & 41 Davies, 2003; Kılıçkaya, 2019). Alkash and Al-Dersi (2013), as a very simple example, stated that most of the English teachers who prefer to convey the information they aim to teach the students by making presentations use PowerPoint because, thanks to PowerPoint, graphs, tables and interesting visuals can be transferred to the students effectively. On the other hand, Çelik

(2012) suggested the use of interactive whiteboards in foreign language classes to increase students' motivation for active participation in the lesson. Sinclair (2000) emphasized the potential of the World Wide Web to develop various modes related to the versatile learning opportunities it provides thanks to its rich textual and visual content. Recently, there are many scholars who have focused on the widespread use of blogging by English teachers in the classroom (Chun et al., 2016; Reinhardt, 2019; Son, 2018; Song, 2019; Tseng & Yeh, 2019).

There are many studies that find positive performance of English teachers in incorporating technology into their classroom environments. For example, Ding et al. (2019) tried to investigate teachers' beliefs about technological tools and e-learning applications in a case study whose participants were 12 secondary school English teachers. According to the findings of the study, English teachers attached great importance to technology support in their language teaching practices and benefited from a large number of digital content applications that differed according to their individual pedagogical attitudes. Another important finding of the study is that English teachers introduced a new web.2.0 tool and a digital platform to each other in order to increase students' interest and curiosity, and they were in cooperation with each other about the difficulties they experienced.

Another positive study is Brown's (2004) study, which aims to examine teachers' evaluations of the Internet's impact on teaching and learning. In this study, in which questionnaires, interviews and case studies were preferred as data collection tools, it was found that English teachers were able to transfer the technological developments they followed and learned to the teaching environments by adapting them according to their own teaching strategies and transforming them into student-centered lesson activities effectively.

Digital literacy has been seen as a worldwide necessity in recent years and an indispensable need in the field of academic, social and professional development (Martin, 2006; Murray & Perez, 2014). When its effects in general and private areas are examined, it has been observed that digital tools affect positively EFL in-class and extra-curricular activities, so language classes now require interactive and web-based activities with digital content rather than grammar-translation and memorization methods (Eaton, 2010; Parvin & Salam, 2015). As a result, software applications and technological devices such as computers, smart phones, smart boards and tablets that can be used in both in-class and extra-curricular learning activities have brought many opportunities and increased their popularity. In addition, such technological content contributes to the permanence of learning by making EFL course environments more interesting and enjoyable.

In today's world, where technology has become one of the most used tools while applying teaching methods, there has been an increase in the number of studies conducted on the level of digital literacy of English teachers and how they can transfer these competencies to the course environment. Additionally, there are many studies on digital literacy and ICT skills of English teachers, as well as the role of digital literacy in EFL classroom environments in the literature.

Machmud (2011) conducted a qualitative study on the problems and challenges in EFL teaching in Gorontalo, Indonesia. The results of the study showed that although many teachers have access to technology, they do not actively use it because many teachers do not know exactly how to use digital tools. Another finding was that these teachers did not find an inspiring source of motivation to master at the use of technological tools. Therefore, most of the participants had an agreement about the fact that they found traditional education and training methods much more useful and that it was a more effective method in conveying the target achievements to the students. In a similar study conducted by Srivastava and Dey (2018), the difficulties and problems experienced by English teachers when using digital tools in the classroom environment were examined. The majority of these problems stemmed from problems such as teachers' lack of sufficient technological support, insufficient time to develop themselves in the technological field, and insufficient in-service training with technology content. In addition, it was found in the study that women's experience with technological and digital tools was much lower than men (Srivastava & Dey, 2018). Garcia-Martin et al. (2017) conducted a study with 483 English teacher candidates in order to reveal the different dimensions of the sub-components of pre-service teachers' digital literacy skills. As a result of the research, it was found that teacher candidates have positive perspectives on the use of Web 2.0 resources and technological content in foreign language teaching (Garcia-Martin et al., 2017).

Similarly, Cote & Milliner (2018) examined the digital literacy competencies of 42 English teachers working at a private university in Japan. The results of the research showed that teachers were confident in enriching the subjects in the English curriculum using digital technology and encouraged students to use digital resources inside and outside the classroom. In addition, the participants requested training and workshops on digital competence development after the research (Cote & Milliner, 2018b). In another study, Albirini (2006) conducted a study on EFL teachers' attitudes towards information and communication technologies. Research findings emphasized the positive attitudes of English teachers towards digital tools and ICT use (Albirini, 2006).

On the other hand, in the context of Turkey, there are some studies on the attitudes and perceptions of English teachers and prospective teachers about using technology and digital opportunities in language teaching practices. Yükselir and Yuvayapan (2019) conducted a study on the perceptions of students and instructors learning English as a foreign language towards the importance of digital literacy in order to determine attitudes towards the use of digital tools in EFL classrooms. According to the findings of the study, students who learn English as a foreign language use their digital literacy as a tool to search and analyze information on the Internet, while for educators, digital literacy skills are seen as a competence used for socialization and communication (Yükselir & Yuvayapan, 2019). Similarly, in another study by Şahin and Han on identifying EFL teachers' attitudes towards 21st century skills, English teachers were selected as participants in a city in Turkey. The results of the study showed that the teachers participating in the research have positive attitudes towards 21st century skills and incorporating technology into their classroom environments (Şahin & Han, 2020). Moreover, Çelik and Aytin (2014) investigated the views of English teachers about the role of digital tools in foreign language teaching. As a result of face-to-face interviews with six English teachers, it was found that the participants benefited from digital tools that would increase students' participation in classroom activities, positively affect the dynamic of the lesson and support collaborative learning activities.

Many studies in the literature have confirmed that English teachers are a group of teachers who have improved themselves in digital literacy and are positive towards innovations and web-based content, but there are also studies showing that the level of digital literacy of English teachers is below the expected level. At this point, the determination of the factors affecting the digital literacy levels of English teachers and their attitudes towards the use of ICT has also been the subject of research in ELT context. According to the results of the research on the factors affecting technology-assisted language teaching, factors such as teachers' attitudes, school physical conditions, experience on technology and digital tools are among the determining factors in the digital literacy proficiency of English teachers (Aslan & Zhu, 2015; Prinslo & Walton, 2008).

First, many researchers stated that how much English teachers accept technology as a teaching tool and how they behave towards technological instructional methods affect their use of technology in the classroom (Dang, 2009; Dogoriti, 2010; Domingo & Gargante, 2016; Kopinska, 2013; Liu, 2009; Myers & Halpin, 2002; Raman & Yamat, 2014; Şahin et al., 2016; Tsou et al., 2006; Yavuz, 2005). In other words, teachers' positive attitude towards technology use will increase technology integration used in classroom activities (Domingo & Gargante,

2016). In the opposite case, negative attitudes arising from teachers' previous experiences or prejudices towards technology use may cause a decrease in the number of digital activities to be included in classroom learning environments (Şahin et al., 2016).

Harmandaoğlu-Baz (2016) conducted a study on examining what could form the basis of teachers' tendency to use technology frequently in lesson activities and as a result of this study, it was concluded that having positive attitudes towards the integration of technology in language teaching has positive effects on transferring technological competencies, knowledge and sharing to the classroom environment. has found. Therefore, it is important that teachers' and prospective teachers' positive attitudes towards technology are not revealed in order to encourage them to use digital materials and technological platforms in the classroom (Alkan & Erdem, 2010; Isman & Dabaj, 2004; Liton, 2015).

Another finding that is evaluated among the factors that affect teachers' use of technology in the classroom is self-efficacy. This is an important finding because a teacher's self-efficacy in digital literacy is a dominant factor in teachers' decisions about technology integration of language teaching (Hill et al., 1987). In other words, as teachers' self-efficacy in digital literacy increases, the use of technology in classroom environments may also increase (Sure, 2009). In this sense, in order to introduce digital materials into teaching practice, teachers need to perceive themselves as self-sufficient in the use of these materials (Albion, 2001).

When the literature on the factors that shape teachers' decisions on technology integration into language teaching is examined, both internal factors such as technology self-efficacy, motivation and attitudes, and external factors such as school facilities and quality have been effective on teachers' attitudes to transfer their digital literacy to classroom activities.

To summarize the role of digital literacy in English language teaching, technology integration in foreign language teaching, the use of Web 2.0 tools, and the inclusion of digital tools in lesson activities positively affect students' interest and participation in the lesson. With the integration of technology, the course contents are enriched and the motivation of both students and teachers increases. The majority of studies to determine the digital literacy competencies of English teachers agree that English teachers are sufficiently digitally literate. Differences of opinion can be observed between digital native and digital immigrant teachers about being willing and open to technology use and technological innovations. It is a necessity for 21st century English teachers to include digital platforms in lesson activities in order to enable the new generation of students to take a more active role in foreign language learning and increase their language learning success.

The Role of ICT Use in ELT

The development of technologies has caused many changes in different areas of life, as well as radical changes in the world of education. Today, many experts share the view that technology has a very high potential to improve the quality of foreign language teaching (Chapelle, 2001; Namaziandost, 2019; Nariyati, 2020; Salaberry, 2001). Thanks to the integration of technology and ICT, appropriate material access can be provided to students of many different age groups and levels in a short time, and the activities that are frequently used in language teaching can be enriched by making them student-centered (Stockwell, 2019).

Warschauer and Meskill (2000) stated in their "Undergraduate Handbook on Second Language Education" that almost every type of language teaching "has its own technology to support it". Even in the Grammar-Translation Method, where the grammar rules are directly introduced by the teachers and the translation is done by the students, they see the "blackboard" as a technology in which knowledge is transferred to the students in a teacher-centered manner. In the following years, when the positive effect of continuous repetition and dialogues in foreign language learning was discovered, the Audiolingual Method was a technological tool. With the rapid growth of technology and the change of priority approaches in language teaching, methods such as Computer Aided Language Learning and Information Communication Technologies have been included in the context of EFL (Warschauer & Meskill, 2000).

After the invention of the computer, external technological hardware related to computers such as scanners, printers and floppy disks emerged. Later, the term IT (Information Technology) began to be widely used in different fields such as industry, commerce, health and education. Then the terms such as the Internet, networks, WWW (World Wide Web), search engines, and e-mail came into our lives. Therefore, Information and Communication technology (ICT) has been adopted and used as a broader title, since information technologies (IT) are insufficient to cover these developing terms. ICT has been defined as "the combination of information technology with other related technologies, especially communication technology" (UNESCO, 2002, p. 13). As Anderson (2010, p.4) states, "the air we breathe literally buzzes with all kinds of information signals". For this reason, ICT covers all the electronic tools we use in the process where we obtain, record, manage and share information with others (Anderson, 2010).

In many countries around the world, especially in Europe, there are official suggestions for general and private institution employees to gain ICT skills (Usun, 2009). As Usun (2009) points out, ICT has become compulsory in almost all primary and secondary education institutions in Europe. Not only teachers, but also students, parents and the roles of the school,

who were exposed to this technological change that deeply affected the education system, had to be renewed and updated through ICT. Pelgrum (2001) questioned the roles of 21st century students, parents and teachers by comparing them with earlier educational conditions. As a result of the integration of ICT into education, the education and training conditions of the main stakeholders of education have been directly affected. Among the main stakeholders of education, students and teachers have the most important roles. In the 21st century world, teachers are expected to be an age-old educationist who has acquired ICT mastery, while students who grow up in a society where technological tools surround us are also expected to use their technological proficiencies for learning purposes.

Internet is the most fundamental subcomponent of ICT and it is the most popular digital tool used by both teachers and students. Tezci (2009, p. 1289) stated that the Internet is the most common type of ICT used by teachers in Turkey. Similarly, Smith et al. (2008) argued that teachers use the Internet more safely and efficiently than in the past. In today's world, since the Internet is used both to meet personal and daily needs and to develop professional competencies, the prevalence of teachers' use of the Internet has increased and the frequency of transferring Internet skills to classroom environments has also increased. The Internet provides access to a wide variety of past and present information in a very short time, so teachers should adapt and transform their teaching strategies, practices and approaches so that they can make maximum use of technology (Kirschner & Davis, 2003). For listening and speaking skills, which call for engagement with native speakers and authentic materials in particular, it is advised that technology be used in language education (Merzifonluoğlu & Tulgar, 2022).

The Web, which is used interchangeably with the Internet, is an important resource that can be easily integrated into education, as it offers opportunities to obtain information, share information, interact and communicate with others, and download and upload different types of materials. Web 2.0 and Web 3.0 tools have increased their popularity in educational technologies. Thanks to these web technologies, teachers and students can access authentic, qualified and rich materials in a short time, and they can edit and modify these materials according to their intended use. In addition, Web 2.0 and Web 3.0 offer options for second generation digital content, online interactions and technological services (Baltacı-Göktalay & Özdilek, 2010). Examples of these technologies may include wikis, blogs, social networks, network meetings, messaging, video conferences. Apart from these, many educational materials such as presentations, banners, posters, animations, online magazines, stories and books can be easily prepared with Web 2.0 and Web 3.0 tools.

As computers and the Internet increase their prevalence in society, ICT integration has gained value at the same rate. The main reason for this is that web-based applications and information communication technologies support achieving targeted learning outcomes effectively (Kuznekoff et al., 2015). The use of ICT in education covers all types of use of information devices such as computers, laptops, Internet, databases and software (Hew & Brush, 2007, p. 225). In addition, according to İnanc and Lowther (2010), it is possible to benefit from ICT in all processes of teachers such as preparing and presenting information, planning and evaluating lessons. As Anderson (2010) states, technology is ubiquitous, including every electronic device used for communication, information acquisition, research and storage. Apart from personal purposes, taking into account the roles used for education and training purposes, the use of ICT has shown many developments since its own history. Integration of ICT into course environments includes the philosophy of learning new things through technological competencies instead of learning new technological competencies (UNESCO, 2008).

According to Chambers (2010), Computer Assisted Language Learning (CALL) is one of the most current sub-disciplines in foreign language education. CALL is generally defined as the use of computers and computer applications in the foreign language education process (Levy, 1997). Although CALL is new in the context of EFL, the use of computers in language teaching is quite older. Davies, Walker, Rendall and Hewer (2010) stated that the use of computers in education dates back to the early 1960s, but according to the socio-economic conditions of the period, high quality computers were only available in the informatics departments of universities. As the number of computers accessible in parallel with the Integrative CALL has boosted, the diversity of CALL's roles used in education has also increased, and this has been the subject of debate in the education literature. Morrison and Reedy (1968) argued that computer-assisted instruction provides the opportunity to monitor, record, compare and summarize students' academic performance. Warschauer (1996) recommended computer-assisted language teaching as an innovative perspective in language teaching in the modern world and aroused interest among foreign language educators. Pamuk and Peker (2009) stated that new generation of teachers are expected to be technologically literate and to put into practice the potential offered by digital tools. The main reason for these expectations is that technology has changed the standards of educational philosophy, approach and practices like many other fields (Hopson et al., 2002).

The integration of technology and ICT into foreign language teaching provides a number of advantages for teachers, students, program developers and administrators. Since the term ICT includes computer-assisted language teaching, all the advantages benefited from the

computer in the language learning process can be included in the positive aspects of ICT use (Chapelle, 2008, p. 66). There are many researchers who advocate the advantages of CALL in language teaching. Khalsa et al. (2007) mentioned many advantages of CALL in language teaching such as equal opportunity, creativity, access to authentic and original materials, originality, freedom of expression, flexibility and comfort. Additionally, the utilization of digital media tools for the acquisition and application of language knowledge and skills would establish the authentic and interactive instructional design (Geçikli, 2022, Chapter 7).

One of the difficulties encountered in classroom environments where traditional language teaching approaches are adopted is the provision of authentic materials. Although the concept of originality is not yet a priority when preparing language teaching materials, it is accepted that original materials positively affect student creativity and success (Taylor, 1994). Thanks to ICT, both students and teachers have the chance to access more interesting and entertaining materials, and they also have the opportunity to meet and communicate with people in the target language (Galavis, 1998).

The characteristics of students vary from each other and each student is special. Another problem faced by teachers in language teaching classes is that students with dominant and shy characteristics cannot show equal learning and class participation performance in a face-to-face classroom environment. Thanks to ICT, shy students can also advance themselves and improve their language skills in an individualized e-learning environment. In addition, for slow learners, digital tools are useful to overcome their deficiencies (Kristonis, 2006). Similar to the mentioned advantage, technology-supported learning environments provide good relations between teachers and students. Issues that cannot be easily spoken in a face-to-face environment can be expressed in online environments that offer private conversation (LeLoup & Ponterio, 2003). Students can collaborate online, set up forums and newsletters thanks to different educational technologies. A teacher who prefers to integrate the use of ICT into language learning environments encourages his students to use these platforms (Shneiderman, 2002).

Although the use of ICT has many of the listed advantages, some disadvantages and limitations remain in its inclusion in educational settings. Brickner (1995) divided ICT integration into education into two groups as first and second degree disadvantages. First-degree disadvantages are hardware related and problems such as poor quality technological tools, network failure, and repair costs are examples of these disadvantages. Second-degree disadvantages are related to teachers' attitudes, motivation, interest and competence towards

the use of ICT. Teachers with low self-efficacy in using ICT may lose their enthusiasm for digital tools when they encounter technical problems (Brickner, 1995).

Some experts warn that ICT integration should be in harmony with the didactic goals during the inclusion of technology in the course environment (Bosco et al., 2016; Moreina et al., 2016). On the other hand, effectively including the use of ICT in the classroom is a demanding process that includes conditions such as a certain teacher quality and school physical facilities (Aydın et al., 2016).

There are many studies examining the ICT usage perspectives, attitudes, motivations and evaluations of English teachers in both Turkish and the world EFL context. In a study conducted by Van Braak et al. (2004), it was discovered that the level of computer use in the classroom is shaped by teachers' attitudes. In another study in which 184 pre-service teachers participated, it was found that computer attitudes affect computer use in the institution (Khine, 2001). Another important finding is that ICT integration into educational activities has a significant relationship with many variables related to teachers, apart from gender (Sang et al., 2010). Variables such as teachers' age, digital competencies, and experience have a greater impact than gender (Antonietti, 2006; Birgin et al., 2010).

Braul (2006), in his research aiming to explore the perceptions and evaluations of 19 English teachers towards CALL, stated that although teachers do not have a good grasp of CALL and basic software, they found CALL useful and tried to integrate it into the course in a way. In addition, Abu Samak (2009) found in his study conducted in Jordan that English teachers have positive attitudes towards the use of ICT.

Albirini (2006) examined whether there is a relationship between the attitudes of 326 English teachers working in state high schools in Syria towards the use of ICT and computer features, cultural thinking, access to information, characteristics and computer proficiency. According to the results of the study, it was concluded that teachers' low digital self-efficacy is an obstacle to effective ICT use and integration. Another important finding of this study is that most English teachers have little proficiency in using certain computer functions.

In their study conducted at a university, Ajjan and Hartshorne (2008, pp. 78-79) aimed to determine the awareness of teachers about supporting in-class activities with Web 2.0 tools and the decision of university teachers and students to adopt these tools. Research findings showed that teachers who prefer to use these tools in their lessons think that thanks to Web 2.0 tools, students' writing skills, peer collaboration and course satisfaction increase. Chen (2008) conducted a study that recruited 311 English teachers from high schools in Northern Taiwan. The aim of the study was to determine teachers' use of the Internet in the language teaching

process and the factors likely to affect this use. At the end of the research, it was revealed that the majority of English teachers (80%) used the Internet in their lessons. In addition, seven different factors that could affect teachers' Internet use were identified: belief, attitude, grade level, critical perspective, constructive thinking, institutional support and perception (Chen, 2008). Gialamas and Nikolopoulou (2010), in a study involving in-service and pre-service preschool teachers in Greece, examined their thoughts and perspectives on the integration of ICT use into early childhood education activities. It has been concluded that in-service preschool teachers have more positive perspectives and approaches to ICT integration than pre-service preschool teachers. On the other hand, it was found that pre-service preschool teachers have higher computer self-efficacy than in-service preschool teachers. (Gialamas & Nikolopoulou, 2010).

The results of a study conducted by Rahimi and Yadolahi (2011) in Iran to explore the computer use anxiety of English teachers and the integration of ICT into language learning activities showed that the genders and years of experience of 254 secondary school English teachers did not affect computer use anxiety. In addition, it was concluded that younger English teachers were more likely to integrate ICT into their course content.

Although many studies on English teachers' ICT use attitudes in the context of abroad generally agree that English teachers have positive perspectives on ICT use, studies showing that there are contradictions between English teachers' ability to efficiently use digital tools and technological devices and their ability to integrate ICT into course content are also available.

There are also studies in Turkey that examine teachers' ICT use attitudes, approaches, perceptions, ICT proficiency levels and concerns. As the number of the studies about CALL, ICT and technology integration to the education has increased so far, it is a necessity to touch on the contents of these studies. One of the first studies in this area was conducted by Hızal (1989). In the study, there were 709 teachers working in public schools in Eskişehir. The aim of the study is to evaluate teachers' thoughts and attitudes towards computer assisted language teaching. Hızal (1989) discovered that teachers foster positive attitudes towards using computers and technological devices in lessons.

Oral (1994) conducted a survey and observation application to evaluate teachers' opinions and experiences about computer-assisted language teaching practices. It has been determined that the teachers participating in the study need in-service trainings or workshops on information technologies in order to improve their computer proficiency and to increase their ability to include the use of ICT in the course content (Oral, 1994).

A study on the thoughts, beliefs and attitudes of 202 teachers selected as participants from three different cities in Turkey, was conducted by Özerol (2009). In the study, in which semi-structured interview technique was used as a data collection tool, teachers shared their thoughts about the attitude of using ICT. Özerol (2009) noted that teachers said that utilizing technology integration is an effective way to improve the quality of education, achieve learning goals, and increase students' success.

Many studies have been conducted on teachers' attitudes towards computer-assisted language teaching (CALL) in Turkey after the 2000s. As an example, Tuzcuoğlu (2000) conducted a study examining teachers' attitudes towards CALL in classrooms. In this study, the attitudes of instructors in Eskişehir Osmangazi University to benefit from computer aided applications in course activities were examined. Instructors stated that they have positive attitudes towards CALL integration and that they can improve these attitudes by increasing CALL competencies and having more information about CALL.

In another example, Aşan (2003) conducted a study to explore the awareness of ICT usage of 252 teachers working in state primary schools of Trabzon. The findings of the study revealed that factors such as gender, experience and school grade have a significant relationship between ICT use and attitude awareness of the teachers participating in the study. Another subject that the study focused on was the problems experienced by teachers during the integration of ICT into their course activities. As a result of the study, problems such as crowded classrooms, lack of physical equipment, low digital self-efficacy and lack of institutional support were listed among the problems faced by teachers.

The study of Çelik and Bindak (2005) is important since it is a rare study that covers the provinces in the Southeastern Anatolia Region of Turkey. The information and communication technologies attitudes of classroom teachers in Siirt were examined by Çelik and Bindak. The aim of the study was to determine whether the variables such as gender, branch and place of work have an effect on teachers' attitudes towards ICT use. As a result of the study, it was found that no significant effect was explored in the variables of gender, branch and place of work.

Özdemir (2007) conducted a study to determine the methods, techniques, strategies and materials used by English teachers in primary school 4th and 5th grade classes while teaching foreign languages. 76 randomly selected English teachers in Çanakkale, Turkey participated in the study. The results of the research showed that while English teachers benefited creatively from effective teaching methods and techniques, they were at a low level in using instructional technologies.

Kocaman (2008) conducted a study to determine the level of using computer software of English teachers working at primary and secondary schools in Burdur. 35 English teachers from 28 different schools participated in the study. During the research process, the digital literacy levels of English teachers, the use of technological opportunities in schools and the attitudes of teachers to use computer software were examined in depth. According to the results of the research, it was found that the digital literacy levels of English teachers are slightly above the average. Another important finding is that although the physical facilities and technological opportunities of the schools are not of good quality, teachers have positive attitudes towards computer-assisted language teaching practices.

Saklavcı (2010) examined the Internet usage habits and attitudes of English teachers working in high school in Eskişehir. The study showed that the rate of high school English teachers' Internet use in Eskişehir was quite high, but in this study, it was concluded that teachers mostly benefited from Internet opportunities for personal interests and professional development purposes. Although the teachers participating in the study had positive attitudes towards their Internet use, it was observed that they did not reflect these attitudes in their teaching environments.

Genç (2011) conducted a study to examine the views of English teachers of foreign language teaching on the integration of ICT. According to the findings of the study in which 56 teachers participated, English teachers had positive attitudes towards ICT integration. Similarly, Eyyam et al. (2010) underlined that English Preparatory School instructors frequently use technological equipment such as computers, projectors, CD players, and videos, which are ICT sub-components in their classrooms. The same study also showed that there is a need for more training of English teachers on the use of ICT technologies.

To summarize the studies in the literature to examine the attitudes of teachers to use ICT in Turkey and abroad, although many studies agree that teachers have positive attitudes towards ICT use, there are also studies that argue that teachers need to improve themselves in using their technological and digital skills in order to integrate ICT into teaching environments. Most studies have stated that gender and school grade do not affect ICT attitude; although it is rare, there are also studies in which gender cause differentiation on ICT attitude. On the other hand, most of the studies have shown that age has an effect on ICT usage proficiency and ICT usage attitude. Another important issue is that teachers may be skilled at using ICT for their personal interests or professional development however it is not necessarily the case that they always use their digital skills in ICT integration into classes. To conclude, studies have an agreement

on that teachers need training about technological skills and ICT integration into foreign language education.

Although there are a great number of studies investigating the digital literacy levels and attitudes towards ICT use in foreign language classrooms separately, there is a need to explore the relationship between digital literacy levels and attitudes of ICT use of English teachers. ELT teachers' digital literacy levels can have an impact on their ICT integration skills in ELT environments. For this reason, the digital literacy levels of English teachers, their attitudes towards technological tools, and the digital materials they use in the classroom may be of great importance for the EFL context. In addition, the advanced commitment of the new generation to technology is an undeniable fact and English teachers have a great role in meeting the learning needs of students with technology.



CHAPTER THREE

Methodology

Research Method

The research design followed in this study is an explanatory sequential research design as both qualitative and quantitative research methods were used. Explanatory sequential design is a design used to explain the change or relationship between two or more variables (Creswell, 2002). This research design ensures that the connections and relationships between the data are revealed after the qualitative and quantitative data are analyzed. (Mertens, 2020). According to how quantitative and qualitative approaches are mixed, numerous favorable aspects have been identified in the associated literature (Collins et al., 2006; Creswell et al., 2004; Denzin, 2010). In order to capture complex issues on phenomena of interest that are rooted in specific contexts and changeable by deeply reflecting constructed meanings and categories, as well as to track common trends/tendencies in how the same phenomenon occurs with more general results, it was thought that it was essential to use multiple methods concurrently (Onwuegbuzie & Johnson, 2006). Additionally, the simultaneous application of several techniques may result in findings that are converging and correlating from various types of data (verbal or numerical) collected on the same phenomenon. That example, consistency between quantitative and qualitative data would assure triangulation (Greene et al., 1989) across techniques. Two scales on digital literacy levels of ELT teachers and their attitudes to ICT integration into foreign language education were administered to the teachers to collect quantitative data, and then face-to-face interviews were conducted to collect qualitative data. In the light of the numerical data obtained after the quantitative research method, the cause-effect relationship between the data was revealed. Qualitative research method, on the other hand, offers the opportunity to examine the attitudes and thoughts of the participants in detail (Özmen & Karamustafaoglu, 2019).

Population and Sample

The population of this study consists of a total of 145 English teachers working at primary, secondary and high school levels in Artvin. Convenience sampling method was used while determining the sample that would represent this universe. In the convenience sampling method, the researcher determines accessible and reachable volunteers as participants (Creswell, 2002). The number of English teachers working in Artvin city center is 48.

Therefore, in order to determine the participants of the study, all English teachers working from the city center and willing to participate in the study were included. In order to collect quantitative data, attitude scales towards digital literacy and ICT use were applied to all volunteer English teachers working in primary, secondary and high schools in Artvin city center.

After 48 English teachers' digital literacy levels were determined in the light of the collected quantitative data, they were classified as digital native and digital immigrant according to their scores. Six digital native and six digital immigrant English teachers were conducted with semi-structured interviews by stratified and convenience sampling method. Stratified sampling is a preferred sampling method because it has a higher representation ability and minimizes possible errors in the findings of the research (Balcı, 1997). Individual semi-structured interviews were conducted with digital native and digital immigrant English teachers.

Data Collection Tools

Scale

In this study, two different scales were used as quantitative data collection tools. Scales are practical and effective data collection tools used to obtain clear and direct information, to obtain data at a lower cost and faster, and to get an idea about the feelings, thoughts and attitudes of the participants. (Özmen & Karamustafaoglu, 2019). For this reason, a scale was used to determine the digital literacy levels of English teachers and their attitudes and thoughts towards the use of ICT. In order to determine the digital literacy levels of English teachers, a scale developed by Dikilitaş and Husebø to measure the self-efficacy of foreign language teachers in using digital literacy and ICT was used (Appendix-1). In the pilot application of this survey conducted in Turkey, the Cronbach Alpha value was calculated as 0.981. Özdamar (2015) characterizes this value as a value with high reliability in reaching accurate and valid results.

After investigating the measurement tools on ICT usage attitude, which is the second branch of the study within the scope of quantitative data, Mohamed Mekheimer (2017), which is in open access, used in his study titled "English teachers' attitudes and motivations towards e-learning tools in language teaching", which is directly related to the scale research problem of our study. Attitudes towards e-learning tools" scale was used (Appendix-2). Scale questions were in the form of a 5-point Likert scale (strongly disagree, agree, not sure, agree, strongly agree) and in this way, teachers' attitudes and thoughts towards the use of ICT were determined. In order to reach reliable and valid results, it was paid attention that no off-topic items were

included in the selection of the scales and that the items consisted of questions to answer the research questions (Büyüköztürk et al., 2020). In order to ensure the construct validity of the scale the Cronbach Alpha value was calculated as 0.956, which shows a high reliable result.

Interview

In the qualitative data collection phase, the semi-structured interview technique, which was developed by the researcher after taking the necessary expert opinions and examining the related studies in the literature, was used as a data collection tool (Appendix-3). Semi-structured interviews allow for a deeper and more detailed investigation of the subject, as well as the fixed answers of the participants (Büyüköztürk et al., 2020). It helps participants express themselves more easily. Since semi-structured interviews have the flexibility to make minor changes to the questions when necessary, the quality of the findings to answer the research questions increases (Yıldırım & Şimşek, 2018). The care was taken to ensure that the interview questions to be used in this study were within the scope of the research. After obtaining preliminary information about the participants, interviews were conducted in a way that attaches importance to ethical and confidentiality rules. The interview questions were directed to the participants in a clear and understandable way, and an environment in which the participants could feel comfortable expressing themselves was provided. The language used in the semi-structured interview questions was left to the preferences of the participants, taking into account the purpose of expressing themselves more easily. Some participants wanted to be interviewed in their native language (Turkish), while others preferred English. Turkish translations of semi-structured interview questions were made by experts in the field. As a result of the interview, an in-depth analysis of the relationship between digital literate and digitally illiterate English teachers' attitudes towards the use of ICT and their digital literacy levels and the factors for the reasons for this relationship were provided. During the interview, the interview was recorded with the permission of the participants so that a more detailed analysis could be made.

Trustworthiness of the Data

Credibility, transferability, dependability, and confirmability are discussed in detail in order to justify trustworthiness (Guest et al., 2014). Member checking procedure and method triangulation increase the chance of confirming credibility (Guion et al., 2011). The characteristics of the participants in the study contributes to the transferability of the findings. EFL teachers in Artvin Province were the target population of the study; all of the participants were convenient for this criterion. Although the number of the sample is small, the participants of the study work in primary, secondary and high schools in Artvin Province, and hence, the

findings of the study may be transferable. Moreover, demographic information related to participants were presented in detail so that transferability of the results might be understood.

The data collection instruments and data trail documentation might contribute to the data dependability (Guest et al., 2014). All stages of the data analysis process were explained in detail. The research findings are presented both in their raw form and with the interpretations of the researcher after statistical analysis. Expert opinions were received and confirmed at every step taken during the research, contributing to the validity and reliability of the research. All the data were collected without personal identifiers and none of the participants had prior relation with the researcher. The consent form also assured participants that any kind of personal identifiers were removed from the study. All data were collected with confidentiality and no participant had any prior relationship with the researcher. The consent form also reassured participants that any personal identifiers were excluded from the study.

Reliability and Validity of the Data

The digital literacy scale used in the study was developed and used by experts in the field. In addition, in order to test the reliability of the scale, the Cronbach Alpha value was calculated as 0.981, which is proved to be a highly reliable data collection instrument by surpassing the .70 reliability threshold (Table 1). Additionally, the Cronbach Alpha value of Attitudes towards ICT Use Scale was calculated as 0.956, which has also a high level of reliability (Table 2). The data collected from the interviews were carefully analyzed so that the data are independent from one another and not influenced by anything else (Pallant, 2021). Moreover, normality tests for Digital Literacy Scale and Attitudes to ICT Use Scale were conducted in order to make sure that the data are normally distributed. Skewness and Kurtosis are two components of the normal distribution and are used to test for normality (Tabachnick & Fidel, 2014). The tests for Digital Literacy Scale showed that Skewness test was .470 and Kurtosis test was -.870 which means that they are between normal grades of -1 and +1 (Hair et al., 2013). The significant value of Kolmogorov-Smirnov test was .200, which proves normal distribution of data. The test results of Attitudes to ICT Use Scale also showed that data is normally distributed. Skewness score was calculated as -.455 and kurtosis score was calculated as -.560. Kolmogorov-Smirnov normality test score of the Attitudes to ICT Use Scale was .200, which means that the data has a normal distribution. For the data which were from the interviews with teachers, transcribed data were sent to the participants in case they desired to make any changes. After the interviews with the teachers were transcribed, they were sent to the participants. In addition, the qualitative findings obtained from the interviews were analyzed

by another researcher who is an expert in the field without being shared any personal information about the participants.

Table 1. *Cronbach Analysis Reliability Statistics for Digital Literacy Scale*

Cronbach's Alpha	N of Items
,981	50

Table 2. *Cronbach Analysis Reliability Statistics for Attitudes to ICT Use Scale*

Cronbach's Alpha	N of Items
,956	24

Data Collection and Analysis

The data collection process of the research started with face-to-face scales delivered to the teachers after the necessary written permissions were obtained from the Artvin Provincial Directorate of National Education and final examinations were made with the thesis advisor. Thanks to the face-to-face surveys, the researcher maintained control in the data collection process and established a close but objective relationship with the participants, ensuring a more effective and reliable participation (Büyüköztürk et al., 2020). The researcher was able to intervene immediately in case of any negativity or problem that the participants might encounter. After collecting quantitative data with scales, semi-structured interviews were held with six digital immigrant and six digital native English teachers with different levels of digital literacy. The interviews took place one-on-one in an environment where the participants could feel safe and comfortable. Although it is more time-consuming, participants feel comfortable and safe in individual interviews, and thus they can give more reliable and detailed answers (Creswell, 2002). Written consent form was signed by the participants before the interviews (Annex-4) and the interviews were recorded for further analysis. After the interviews were completed, the written versions were delivered to the participants and they were given the opportunity to edit the places they wanted to add, remove or edit. Thus, more reliable and valid findings can be obtained. After obtaining qualitative and quantitative data through scales and interviews, the data analysis process was started.

IBM SPSS (Version 20.0) was used in the analysis of quantitative data from the study. In the analysis of the data, firstly, the Single Sample Kolmogorov-Smirnov (K-S) Test was used to test whether the data obtained from the English teachers' digital literacy scale and the attitude scale towards the use of ICT fit a certain distribution (uniform, normal or poisonous) (Baştürk, 2010). It was determined whether the data obtained showed normal distribution or not. Then,

in addition to descriptive statistical methods, the correlation coefficient was calculated in order to determine whether there is a significant relationship between the digital literacy levels of English teachers and the ICT usage attitude scale.

For qualitative data, content analysis was preferred and “description, analysis and interpretation” steps were followed. In order to prepare the data for future analysis, the interviews were firstly transcribed. The crucial step in the data analysis process for this study at this point was verbatim transcription of the recordings, which allowed the researcher to handle the data once more and, as discussed by Patton (2002), “it provides an opportunity to get immersed in the data, an experience that usually generates emergent insights” (p. 441). Additionally, the researcher categorized the fieldnotes taken during the interviews into classes according to the common categories. The researcher then combined the fieldnotes and transcriptions based on the ideas presented in the pertinent literature to discover codes by first looking for the smaller, more manageable sections in order to seek out other repeating themes. These first codes were immediately written on certain texts by the researcher as an attached tab in the margin. A fresh reading was then conducted in order to formally code for this period. The researcher read the fieldnotes, transcriptions, and other materials repeatedly until she had finished the coding by repeatedly attaching colored tabs in the margins (Patton, 2002). Finally, findings and results were thoroughly constructed and the researcher figured out the final form of the category system.

The Role of the Researcher

In this study, the most fundamental role of the researcher in the process of obtaining quantitative and qualitative data is to maintain objectivity and minimize bias in the data. In the quantitative data collection process, the researcher objectively followed and controlled the process by ensuring that the scales were applied face-to-face. In order for the interview questions, which are qualitative data collection tools, to be in the nature of answers to the research questions of the study, a detailed literature review was conducted and the necessary expert opinions were obtained. In addition, it provided an objective and unbiased data collection environment to the participants and increased the reliability of the research results by sharing the outputs of the interview recordings with the participants.

Ethical Assurances

Ethical assurances were carefully paid attention in each process of the study. Procedures and policies were planned and carried out with respect to the institution rules and recommendations. Additionally, all the participants were clearly informed about what they

were asked to do and why they were asked to attend in the study. Consent forms were signed and agreed by participants who were interviewed for the qualitative part of the study. They were also reminded that they could leave the study at any circumstances without any hesitation or need for excuse. There was no other information requested from the participants such as personal information. In the results section, participants' statements were presented by keeping their names or any other private information secret. Throughout the data collection process, the researcher behaved objectively and provided necessary conditions to collect reliable and valid data by preventing any influence that may harm the objectivity of data collection steps without revealing their names or any other private information.



CHAPTER FOUR

Findings

This research investigates the relationship between the digital literacy levels of English teachers working at primary, secondary and high schools in Artvin city center of Turkey and their attitudes towards the use of ICT in foreign language teaching. The findings of the four previously mentioned research questions are presented in two subcategories: quantitative findings and qualitative findings. Quantitative results focus on whether there is a significant relationship between English teachers' digital literacy levels and their attitudes to ICT usage in foreign language education classes in the light of two different scales. Qualitative results, on the other hand, focus on explaining the relationship between the digital literacy levels of English teachers and their attitudes to use ICT in foreign language education environments, in the light of the analyzes of both scales and interviews. Results are explained and demonstrated in detail by using tables and quotations from interviews.

Quantitative Findings

This section of the study includes the findings of the quantitative research questions. By these research questions, it was examined whether there is a significant relationship between the digital literacy levels of English teachers who work at primary, secondary and high schools and the attitudes of English teachers towards the use of ICT in foreign language teaching.

Demographic Data

Descriptive statistics was conducted in order to describe the properties of the participants and to better understand the data obtained. 48 English teachers from Artvin province were included as participants in the study. A number of descriptive statistics was conducted in order to describe properties of the data and participants. 68.8% of the participants were female (n=33), while 31.3% of the participants were male (n=15). Since one of the aims of the study is to investigate the digital literacy levels of English teachers, the participants' ages and years of experience which were considered as a significant variable were also presented (Sharma, 2017). 16.7% of the teachers were between 25-30 years old (n=8), 35.4% of the teachers were between 31-36 years old (n=17), 39.6% of the teachers were between 37-42 years old (n=19), and 8.3% of the teachers were over 43 years old (n=4).

Table 3. *Demographic Data of the Participants*

Years of teaching experience	N	%
Under 5 years	6	12.5
6-10 years	14	29.2
11-15 years	12	25
16-20 years	12	25
Over 21	4	8.3
Total	48	100

12.5% of the teachers were novice who has less than five years of teaching experience (n=6), 29.2% of the teachers had 6-10 years of teaching experience (n=14), 25% of the teachers had 11-15 years of teaching experience (n=12), 25% of the teachers had 16-20 years of experience (n=12) and 8.3% of the teachers were had more than 21 years of teaching experience (n=4), (Table 3). 12.5% of the teachers worked in primary schools, 60.4% of the teachers worked in secondary schools, and 27.1% of the teachers worked in high schools in Artvin province.

Findings Related to Research Questions

Research Question 1: What is the digital literacy level of English Teachers at primary, secondary and high school levels in Artvin?

In order to answer the first research question, the mean score of the Digital Literacy Scale, which consists of questions to determine the digital skills of English teachers, was computed and calculated. There were 50 items in the scale which were related to teachers' way of using digital tools for personal use and educational goals. All of the items in the scale were Likert-scale questions (strongly agree (5), agree (4), not sure (3), disagree (2), and strongly disagree (1)). The items in the scale were asked in a positive way which means strongly agree and agree answers show positive and high competence to use digital tools effectively. In the same way, disagree and strongly disagree answers mean the participants have low self-confidence in using digital tools. The items in the scale related to the way English teachers use digital tools in educational context as presented below:

“Reflect on the effectiveness of my use of digital tools/software in teaching.” (Q12),

“Evaluate the impact of my use of digital tools/software on student learning.” (Q13),

“Identify digital tools/software for enhancing student learning.” (Q15),

“Implement appropriate digital tools/software for student learning.” (Q18),

“Design digital learning activities.” (Q20),

“Promote active learning with digital tools/software.” (Q21),

“Set up digital activities that support learning.” (Q22),

“Foster independent learning through digital tools/software.” (Q24),

“Produce digital teaching and learning materials.” (Q26),

“Design a variety of formative assessment activities (e.g, feedback opportunities) in a digital environment.” (Q33).

“Adapt my teaching strategies to a digital environment.” (Q38),

“Encourage students to come up with new ideas by using digital tools and resources.” (Q47),

“Support students in building digital capacity to deal with learning challenges.” (Q50),

The questions in the digital tools include 50 items that shed light on how English teachers use their digital literacy capabilities in terms of different perspectives such as lesson planning, evaluation, active student participation in classroom activities. Strongly agree and agree answers mean English teachers make use of digital tools for the related item in a high self-confident and frequent way in their teaching foreign language activities. Strongly agree and agree answers state high level of digital literacy of English teachers while strongly disagree and disagree answers mean low level of digital literacy.

Table 4. *Descriptive Statistics for Digital Literacy Scale*

<i>Items in the Scale</i>	<i>M</i>	<i>SD</i>
12. Reflect on the effectiveness of my use of digital tools/software in teaching.	4.21	,743
13. Evaluate the impact of my use of digital tools/software on student learning.	4.10	,805
15. Identify digital tools/software for enhancing student learning	4.31	,657
18. Implement appropriate digital tools/software for student learning.	4.29	,798
20. Design digital learning activities.	3.69	,926
21. Promote active learning with digital tools/software.	4.19	,867
22. Set up digital activities that support learning.	3.92	,871
24. Foster independent learning through digital tools/software.	3.77	,905
26. Produce digital teaching and learning materials.	3.56	1,009
33. Design a variety of formative assessment activities (e.g, feedback opportunities) in a digital environment.	3.98	,978
38. Adapt my teaching strategies to a digital environment	3.94	,885
47. Encourage students to come up with new ideas by using digital tools and resources	4.12	,937
50. Support students in building digital capacity to deal with learning challenges	4.00	,772

The items' mean scores related to the way teachers make use of digital tools in educational activities were calculated (Table 4). When the table is examined in detail, the scores of English teachers in using digital tools in foreign language teaching environments are over 3.50. While the score of using digital tools to increase student participation is quite high (4.12), the scores of digital course content and material preparation were calculated to be relatively low (3.69). On the other hand, the average score of the English teachers participating in the research in adapting their teaching strategies to digital and technological developments is also quite high (3.94). It is important to note that all of the items' mean scores are above 3.56, which may be interpreted as the participants of the study have a high level of digital literacy skills. These findings might point that English teachers feel competent in their digital literacy levels and make use of digital tools effectively for educational purposes.

In order to determine the digital literacy levels of English teachers, the mean score of Digital literacy scale conducted to 48 participants was calculated as 201.04 via SPSS. The participants were divided into two groups according to their Digital Literacy Scale scores. The scale also included demographic information related to English teachers' ages and years of teaching experience. The ones who had less than the mean score ($M=201$) were considered as digital immigrant teachers while the ones who had higher score than the mean score were considered as digital native teachers. The highest score of the scale was 250 and lowest score was 108. 50% of the participants 'scores were more than 201 ($n=24$) and they were accepted as digital natives. On the other hand, the other half of the participants' scores were less than 201 ($n=24$) and they were considered as digital immigrant teachers.

Research Question 2: What are the attitudes of English Teachers at primary, secondary and high school levels towards the use of ICT in foreign language education in Artvin City Centre?

In order to answer this research question, mean scores of the items in the Attitudes to ICT Use Scale which mainly focus on attitudes, perspectives and beliefs of English teachers to make use of ICT in foreign language education were computed and calculated. The scale has four parts which investigates attitudes to ICT use in terms of four categories (perceived self-efficacy, perceived enjoyment, perceived usefulness and perceived satisfaction). As in the Scale of Digital Literacy, all the items were positively asked in Likert-scale, which means strongly agree and agree answers refer to positive attitudes to use ICT in foreign language education practices. Q1, Q3 and Q6 focus on the perceived self-efficacy of English teachers in ICT use, Q8, Q9 and Q13 investigates the perceived enjoyment of English teachers while using ICT, Q15, Q18 and Q19 center on the perceived usefulness of ICT according to English teachers and

Q20, Q21 and Q22 examines the perceived system satisfaction of English teachers in using ICT for language teaching practices. The items related to English teachers' attitudes to use ICT in FLE were:

- “I feel confident making online instruction” (Q1),
- “I feel confident using e-learning environments.” (Q3),
- “I intend to use the Internet to assist my teaching.” (Q6),
- “I enjoy using computers as a teaching assisted tool.” (Q8),
- “I enjoy using e-learning environment for teaching purpose.” (Q9),
- “I like instant messaging, emailing, and discussion boards, and the virtual classroom.” (Q13),
- “I believe using e-learning environments is helpful for learning.” (Q15),
- “The e-learning environment improves my thinking skills.” (Q18),
- “The e-learning environment provides various aspects to solve problems.” (Q19),
- “I am satisfied with using e-learning environments.” (Q20),
- “I am satisfied with using MS-Word, MS-PowerPoint files as multimedia instruction.” (Q21),
- “I am satisfied with using online instruction.” (Q22).

Table 5. *Descriptive Statistics for Attitudes to ICT Use in FLE*

<i>Items in the Scale</i>	<i>M</i>	<i>SD</i>
1. I feel confident making online instruction	4.21	,771
3. I feel confident using e-learning environments.	4.19	,842
6. I intend to use the Internet to assist my teaching.	4.38	,761
8. I enjoy using computers as a teaching assisted tool.	4.48	,618
9. I enjoy using e-learning environment for teaching purpose.	4.33	,781
13. I like instant messaging, emailing, and discussion boards, and the virtual classroom.	4.04	,967
15. I believe using e-learning environments is helpful for learning.	4.50	,619
18. The e-learning environment improves my thinking skills.	4.29	,743
19. The e-learning environment provides various aspects to solve problems	4.31	,689
20. I am satisfied with using e-learning environments	4.21	,798
21. I am satisfied with using MS-Word, MS-PowerPoint files as multimedia instruction.	4.19	,734
22. I am satisfied with using online instruction.	4,23	,778

When these items are examined in detail, it can be considered that English teachers have mostly positive attitudes towards ICT use in English language practices. Most of the items' mean scores are above 4.00, which means strongly agree and agree answers dominates the other answers (Table 5). The maximum mean score was calculated as 4.604, while the minimum mean score was computed as 3.833. When the items were checked thoroughly, the results might indicate that English teachers' perceived self-efficacy, perceived enjoyment, perceived usefulness and perceived satisfaction levels of English teachers in ICT integration to ELT practices are quite high.

The mean score of Attitudes to ICT Use in ELT Scale was calculated as 97,833. The minimum score of the scale was saved as 69, while the maximum score was calculated as 115. 75% of the participants' Attitudes to ICT Use scale scores were more than 90.25. It can be concluded that most of English teachers in Artvin Province have positive attitudes, beliefs and approaches to making use of ICT in their educational environments. According to the findings, English teachers have apparent tendency to integrate their ICT skills in foreign langue education activities.

Research Question 3: Is there a significant relationship between the digital literacy levels of English Teachers at primary, secondary and high school levels in Artvin City Center and their attitudes towards ICT use in foreign language education?

In addition to the digital literacy levels and attitudes to ICT use of English teachers, the relationship between these two variables was also examined. In order to reveal whether there is a significant correlation between digital literacy levels and attitudes to ICT usage of English teachers, Pearson Correlation test was conducted since the data of the scales were normally distributed.

Table 6. *The Correlation Between Digital Literacy and Attitudes to ICT Use in FLE*

Attitudes to ICT Use		
Digital Literacy Levels	r	.663
	p	.000
	N	48

As is it can be clearly seen in Table 6, the results showed that there is a significant correlation between digital literacy levels of English teachers and their attitudes to ICT use in ELT practices, $r=.663$, $n=48$, $p<.005$.

Qualitative Findings

Research Question 1: What are the evaluations of English teachers with different digital literacy levels (digital native and digital immigrant) at primary, secondary and high school levels regarding the use of ICT in foreign language education in Artvin City Centre?

In order to better understand and explain the quantitative results, semi-structured interviews were conducted with 12 participants who had previously completed the digital literacy and ICT use attitude scale. In order to explain the relationship between digital literacy and ICT usage attitude more comprehensively and to question the reasons behind this relationship, the participants were divided into two groups as digital natives and digital immigrants according to their digital literacy levels. While grouping teachers as “digital native” and “digital immigrant”, English teachers’ Digital Literacy Scale scores were used. Semi-structured interviews were conducted with 6 digital native and 6 digital immigrant teachers. Semi-structured interviews were recorded with the consent of the participants. Afterwards, the recordings were transcribed. With participants’ consent, the interviews were recorded. Then, the recordings were transcribed. 6 themes were created according to the focus of the research question and the answers of the participants (Figure 1).

Figure 1. *Thematic Structure of ELT Teachers’ Evaluation for Digital Literacy and ICT Integration*

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1. Significance of Digital Literacy in FLE (11)
 2. Advantages of Digital Tools/ICT Integration into FLE
 - 2.1. Increase in Students’ Motivation (8)
 - 2.2. Practical and Useful opportunities (11)
 3. Disadvantages of Digital Tools/ICT Integration into FLE
 - 3.1. Limited Technical Conditions (9)
 - 3.2. Risk of Online Addiction (7)
 - 3.3. Internet Safety Problems (4)
 - 3.4. Classroom Management Problems (5)
 4. Factors Behind Motivation/Demotivation towards Digital Tools/ICT Integration into FLE
 - 4.1. Students’ High Interest to Participate in Lesson (12)
 - 4.2. Rich Sources of Materials (8)
 - 4.3. Students’ Low Interest (6)
 - 4.4. Technical Limitations (7)
 5. Reasons behind Limited/Effective Use of Digital Tools/ICT Integration into FLE.
 - 5.1. Active Learning Environment (10)
 - 5.2. Lack of Parental Support (5)
 - 5.3. Technological Limitations (9)
 - 5.4. Demand for Advanced Digital Tooling Skills (4)
-

Significance of Digital Literacy in EFL

In terms of the significance digital literacy, apart from one digital immigrant participant, all the participants expounded that digital literacy has a significant and substantial role in English language teaching. Digital Native 4 stated that:

We live in a digital age, and books, encyclopedias and many sources of information have begun to be replaced by digital tools. Making use of digital tools in the classroom environment is a necessity rather than a choice.

Digital Native 2 set forth the significance of digital literacy:

It is vitally important. English is a language rather than a class. Language exist for the aim of communication and we are able to communicate in global atmosphere thanks to the advanced technology.

Digital Immigrant 6 said:

As in all branches, we cannot think of English separately from technology. We have to adapt to the conditions of the time. Making use of technology in teaching the four basic skills in English teaching is a necessity in today's education practices. It would be outdated not to take advantage of technology.

Digital Immigrant 4 said:

Digital literacy is important but it is not everything in ELT. Digital tools are only a part of foreign language teaching activities. It is not the main focus. Gestures, teaching styles and communication with the students play a more important role in ELT than digital literacy.

Although only one of the digital immigrant teachers state the digital literacy plays a small role in ELT, he accepts that digital literacy is a part of language teaching practices. It can be concluded that teachers regard digital literacy as a significant and essential necessity for implementing teaching practices. Both digital native and digital immigrant teachers agree on the importance of digital literacy in ELT.

Advantages of Digital Tools/ICT Integration into FLE

In order to find out the advantages and positive effects of digital tools and ICT integration into FLE, participants were asked about their perspectives on making use of digital tools and ICT in their classroom activities. Participants had generally positive attitudes to ICT integration into FLE. Digital Immigrant 5 said:

I think ICT integration makes the lessons more enjoyable and increases the students' self-confidence and creativity. Students and teachers can create their own materials.

Digital Native 6 said:

Digital tools and ICT integration into FLE make the teaching and learning process more efficient. They help the students to engage in learning activities more actively. It provides personalized practice for learners and more importantly, they allow the students to become more independent learners.

Most of the participants regarded ICT integration as a factor that increases students' motivation and participation to classroom activities. Digital Immigrant 6 said:

Although I have been a teacher for 9 years, I have been introduced to the smart board for 3 months due to the impossibilities of being a teacher in rural areas. Formerly, only 2-3 students who love English in the classroom attended the class, but since the smart board was available in our classroom, almost everyone in the class has been eager to attend the lesson. All of the children has shown great interest in the fun activities and games on the interactive board.

Another interesting statement from Digital Native 1 was:

ICT integration provides effective and permanent learning. They can access anything which are not possible to reach in daily life thanks to the Internet. Today's learners don't learn the way we used to. Classical methods are unfortunately not effective for the new generation. Since digital learning offers children the opportunity to learn through fun games, children actively participate in classroom activities.

It can be understood that the participants had positive opinions for ICT integration and they had an agreement on that digital tools increase learning efficiency, students' motivation and interaction.

Disadvantages of Digital Tools/ICT Integration into FLE

In terms of disadvantages of digital tools and ICT integration into FLE, the participants mainly focused on similar points such as inequality of technical conditions at schools, risk of Internet addiction and Internet safety.

Digital Immigrant 3 said:

The Internet is not helpful for the participation of uninterested children in classroom activities. It can cause addiction. Kids sometimes spend more time online than they should, hiding behind the excuse of doing homework.

Digital Native 3 told that:

Overuse of digital tools may cause Internet addiction. Parents need to control children's Internet behavior regularly. Also, some students may not have Internet access and this can create a problem in ICT integration into FLE.

Digital Native 6 stated that:

Digital tools may result in lack of self-discipline for students. Sometimes students can feel bored or show unwillingness to the similar kinds of online activities. It is really demanding to update online materials and create diversity in digital teaching practices.

Some of the participants stated that digital tools may create some classroom management problems. Digital Immigrant 5 said:

ICT integration harms classroom management and causes noise in the classroom environment.

Digital Native 4 told:

It is difficult to keep the classroom atmosphere calm and quiet while using digital tools.

Digital immigrant 1 said:

ICT has risks if you do not know how to use it correctly. It makes classroom control difficult to manage.

Both digital immigrant and digital native participants mentioned about the negative sides of digital tools in terms of students. Digital native 2 stated that:

Students may not use digital tools safely when they are alone. Sometimes they affect students' creativity negatively and students can't develop their problem solving skills.

Digital Immigrant 6:

Because of ICT, children get used to easy and fast materials, therefore they become lazy. The activities from the books don't attract their attention and students start to find book activities or worksheets boring, which sometimes may be more useful than online materials.

To conclude, both digital native and digital immigrant English teachers try to make use of digital tools and online materials. Although they stated that the use of ICT in classroom settings contributed greatly to language learning and acquisition of language skills, they acknowledged that excessive use of ICT may also have disadvantages in some cases.

Factors Behind Motivation/Demotivation towards Digital Tools/ICT Integration into FLE

One of the aims of our research was to explain the relationship between English teachers' digital literacy levels and their attitudes towards ICT integration. In this regard, questions were directed to participants to investigate the factors that increase or decrease the motivation of digital native and digital immigrant English teachers to benefit from digital tools and ICT integration in learning environments. According to the answers, it can be concluded that students' motivation and willingness to participate in digital or ICT integrated activities is one of the biggest factor that affects teachers' motivation to make use of ICT in FLE.

Digital Immigrant 3:

Students are happier when doing homework by clicking instead of doing homework using a notebook and pen. As their motivation increases, so do I.

Digital Immigrant 5:

The students participate in activities more eagerly. Students' motivation and eagerness motivates me a lot. If students show interest in my online activities, I use them more.

Digital Native 1:

It is possible to find and create content that appeals to many different levels and language skills on digital platforms. When the children see me, they say, 'Which game did you prepare for us today?' The excitement of my students is my biggest motivation.

On the other hand, students' low interest and motivation has also a role in affecting teachers' motivation to use ICT or digital tools in FLE. Digital Immigrant 1 said:

When students do not show interest in an online material that I have prepared with enthusiasm and they make excuses not to do it, I no longer feel like preparing digital content.

Physical inadequacies and technological impossibilities in classrooms and schools might also found to be important factors affecting teachers' motivation to making use of digital tools according to the answers of the participants.

Digital Native 3 said:

Students have unequal opportunities. Some students don't have a chance to access to Internet. When I realize these kinds of inequalities between students, my motivation decreases.

Digital Immigrant 5 stated that:

When the smart boards we use in our classrooms have bad qualities and constantly create technical problems and the school Internet does not allow access to many useful sites that can be used for educational purposes, my motivation to use ICT decreases.

One of the digital native English teachers expressed the parents and school principals' support is really important while choosing teaching materials. Digital Native 5 commented:

When teaching English, I often make my students listen to foreign songs and watch movies from the smartboard so that they can be exposed to the language from native speakers. But unfortunately, when I do this often, some parents or school administrators judge me as "This teacher does not teach my child anything, the children just stare at the screen throughout the lesson." This situation unfortunately reduces my motivation.

The answers of the participants may reveal that English teachers show interest in digital materials since ICT integration provides various kinds of activities for different levels, ages and aims. However, their ICT integration habits may be affected negatively because of technical limitations or classroom management problems.

Reasons behind Limited/Effective Use of Digital Tools/ICT Integration into FLE

Another point of emphasis in the interviews was the reasons behind digital native and digital immigrant English teachers' limited or effective use of digital tools and ICT integration into foreign language education. Both digital native and digital immigrant English teachers were asked to explain what the reasons are behind their ICT integration habits in the classroom activities. Some of the digital immigrant teachers mentioned about the workload and difficulties of ICT integration into FLE.

Digital Immigrant 6 said:

When physical facilities do not allow, it becomes very tiring and restrictive to carry my own computer and tape recorders to school.

Digital Immigrant 4 stated that:

If the digital material is not appropriate for my teaching goal and it needs edition or correction, I avoid using them because it takes time and high level of digital skills.

Another important statement from Digital Immigrant 5:

Making use of digital tools and ICT integration into FLE create some classroom management problems. If there is a lot of noise in the class, I don't prefer using them. Sometimes, it takes so much time to regain the control of the students after implementing digital activities.

On the other hand, both digital native and digital immigrant English teachers set forth the significant role of digital tools and ICT integration on modifying and increasing learning efficiency. According to the participants, online materials attract students' attention and trigger their willingness to participate in classroom activities.

Digital Native 6 said:

Thanks to ICT integration, it is possible to find materials for different levels of students including low achievers.

Digital Native 3 stated that:

I give importance students' feelings during the classes and I want them to enjoy all the activities. They like using web 2.0 tools and I try to make them learn English through experiences by involving them in teaching activities. They learn English inductively by using online materials. I don't like using deductive teaching. While using digital tools, I can see their happiness and enjoyment during the class and even the laziest students become eager to learn and participate in lesson.

Another interesting statement from Digital Native 1:

When I tell my students "Let's write a paragraph about protecting the environment." they find it very boring. But when I say "Let's prepare a newspaper column on the online platform." they all get excited and participate. Online activities increase cooperation and communication among students. ICT integration brings awareness of group work.

Digital Native 4:

Thanks to interactive smartboards, students can watch videos, listen to songs, do worksheets, read stories and dialogues and play games. They all enjoy doing online activities.

Digital immigrant teachers also find digital materials as a factor that increases participation of the students. Digital Immigrant 5 said:

ICT integration makes even writing tasks that students generally find boring more enjoyable. My students feel more comfortable to do speaking tasks via digital tools. Students like them a lot and they are easy and fast to use.

Consequently, when the qualitative findings are examined, both digital native and digital immigrant teachers agree that digital literacy has an important role in English language teaching. According to their answers, it is a necessity for teachers to be digitally literate in the context of language teaching in order to be able to address today's new generation students and meet their needs. Both digital native and digital immigrant English teachers acknowledged that

ICT integration and digital tools have advantages that increase students' motivation, interest and engagement in the lesson. In agreement with the most of the participants, the integration of digital resources and ICT provides the opportunity to reach a large number of interesting materials suitable for different age groups and levels in a short time. On the other hand, most of the participants agreed on the fact that although digital tools and ICT integration have great advantages, they also have disadvantages. These disadvantages can be grouped under the titles of inequality of physical facilities, inequality of access to the Internet, risk of addiction and misuse or overuse of digital tools by the students or teachers. Almost all the participants stated that the feedback from the students and their interest in the lessons are the factors that most feed the motivation of English teachers to benefit from digital tools. Technical problems, Internet connection problems, lack of support from school administrators and parents, and low interest from students were mentioned as factors that reduced the motivation of both digital native and digital immigrant English teachers to use ICT integration. Moreover, qualitative data also revealed that both digital native and digital immigrant English teachers try to make use of digital tools efficiently since they think digital materials attract students' motivation, participation and enthusiasm. To conclude, digital native and digital immigrant English teachers had corresponding opinions related to significance, advantages and disadvantages of digital tools and ICT integration into FLE.

CHAPTER FIVE

Discussion

As examined in detail in the literature, many studies conducted in the national and international context have shown that the digital literacy levels of English teachers are acceptable or at a high level. However, there also have been some studies suggesting that the digital literacy levels of English teachers can be below the average or English teachers may need to develop their skills of ICT integration into FLE practices. The present study also aimed to examine English teachers' digital literacy levels, their attitudes to ICT integration into foreign language education and the relationship between their digital competencies and attitudes to ICT integration in Turkish context. Overall, the results of this study indicated that English teachers have a high level of digital literacy and they generally have positive attitudes to ICT integration into FLE. Another important finding was that there is a significant correlation between English teachers' digital literacy skills and their attitudes to use ICT in FLE practices. The results of the study were discussed in detail in this chapter.

Discussion of the Findings of First Research Question

The initial purpose of the first question of our research was to investigate the digital literacy levels of English teachers in Turkish context. The current study found that English teachers' digital literacy is at a high level. This finding is in accord with previous studies indicating that English teachers have high digital competence skills (Benali et al., 2018; Juurakko-Paavola et al., 2018). However, the findings of the current study do not support the previous research conducted by Machmud (2011), the results of which revealed that English teachers in Indonesia do not make use of digital tools actively in spite of availability of high quality technological tools since they have low level of digital literacy skills. The results of the current study may be explained by the fact that today's teachers have become aware of the new generation student profiles' commitment to digital resources. We live in a digital age where technology surrounds people of all ages and it can be quite difficult in today's world to reject all these technological developments and stay traditional. Access to a great amount of information and resources is possible by digital tools. Technology allows both teachers and students to investigate and interact with a wide range of subjects, sources and materials beyond traditional classroom boundaries. Another explanation for this result may be the fact that English teachers need to use digital tools actively in order to maintain their teaching and

communication skills in English. English is a lingua franca and it is possible to improve foreign language skills and interact with other cultures thanks to digital tools. Therefore, it can be accepted as a necessity to use digital tools efficiently by English teachers. However, with a small sample size, caution must be applied, as the findings might not be valid for a larger sample in which students and teachers have limited access to technological tools and materials.

Another interesting finding on the digital literacy levels of English teachers was that the frequency of using digital content in language teaching by English teachers is higher than the frequency of creating their own digital materials. These results corroborate the findings of a great deal of the previous work of Albirini (2004), results of which showed that while English teachers effectively use digital materials in their daily lives, their didactic digital literacy skills are relatively low in classroom practices. A possible explanation for this might be that it is possible to reach many course materials suitable for teaching English without spending any time and energy thanks to the Internet which offers deep and rich source of content.

Another possible explanation for this is that preparing digital materials may require advanced digital tooling skills, time, training and energy. The curriculum load that teachers have to train in a limited time and extracurricular planning may cause teachers not to find enough time and opportunity to develop themselves in digital content production. On the other hand, many factors such as the costs of platforms for preparing online materials, inadequate physical conditions in schools, and lack of school principal support may negatively affect teachers' ability to transfer their digital competence levels to learning environments. Overall, these findings may suggest that more time, energy and support for developing digital literacy skills of English teachers should be spared by schools, educators, curriculum planners, program developers and policy makers.

Discussion of the Findings of the Second Research Question

The second research question of this study aimed to examine EFL teachers' attitudes to ICT use in foreign language education practices in Turkish context. The results showed that English teachers had positive attitudes to ICT integration into language teaching activities in classrooms. English teachers' perceived self-efficacy, enjoyment, usefulness and system satisfaction for ICT use in foreign language educational practices were at quite high level. This result contradicts with the study of Gilakjani and Leong (2012) which indicated that English teachers have difficulties in ICT integration into language teaching activities. However, this finding broadly supports the work of other studies which revealed that English teachers have positive approaches towards the use of ICT in FLE (Gialamas & Nikolopoulou, 2010; Huang et al., 2017; Oral, 1994; Rodrigues et al., 2019; Sidgi, 2017). Moreover, the current study's

results are consistent with Brul's study (2006) and the study of Alhumaid et al. (2020), results of which showed that English teachers' perceptions and evaluations for ICT use in foreign language education are positive. A possible explanation for the current study's results may be the fact that the contents in the textbooks used in English teaching are quite restricted and teachers may need ICT integration to enrich the course content and develop students' foreign language skills such as listening and speaking instead of only focusing on grammar and reading skills. The course books provided by the Ministry of Education generally focus on vocabulary and reading material in Turkey. Therefore, teachers may need to apply digital sources in order to transfer cultural contents, native speech in the target language and other useful materials fostering listening and speaking skills. Another explanation for this finding may be the incontestable opportunities of ICT integration into FLE. Teachers can expose children to real-life language use by utilizing ICT tools such as movies, audio recordings, and interactive websites, which will improve comprehension and fluency. Additionally, ICT technologies give teachers a variety of innovative teaching methodologies, enabling them to customize lessons to fit the requirements and learning preferences of specific pupils. Digital collaborative tools, online language learning resources, and virtual simulations encourage active involvement and support a learner-centered environment (Khine, 2001).

These data must be interpreted with caution because physical and technological facilities in most of the schools in Artvin Province are in good condition compared to the conditions of rural settlements. Therefore, the ability of English teachers to easily benefit from these technological opportunities may have positively affected their skills, perceptions and attitudes to ICT integration into FLE.

Discussion of the Findings of the Third Question

The third research question investigated whether there was a significant relationship between English teachers' digital literacy skills and their attitudes to ICT integration into foreign language education. According to the findings, there was a significant correlation between English teachers' digital literacy competence and their attitudes to ICT usage while teaching English. This study is consistent with Albirini's study (2006) on how English teachers transfer their digital literacy skills into ICT usage in language teaching. The research of Albirini (2006) revealed that there is a relationship between the attitudes of English teachers in Syria to ICT integration and their computer proficiency. However, the outcome of the current study is contrary to that of Gilakjani and Leong (2012) who found that English teachers do not transfer their digital competence and digital literacy skills into ICT usage in language teaching in spite of their high levels of digital literacy skills. In other words, English teachers' having advanced

digital literacy skills do not conclusively assure that they effectively make use of ICT in their foreign language teaching experiences. On the other hand, the results of the current study may be explained by the small sample size of the study whose participants had high level of digital literacy skills. 50% of the participants had 10-20 years of teaching experience, which can be the reason for their advanced digital tooling skills and effective ICT integration skills. Another possible explanation for this finding may be the fact that the schools in Artvin have pleasant technological conditions with small numbers of students in the classes, which may increase teachers' positive attitudes to use ICT in foreign language education practices.

Discussion of the Findings of the Qualitative Research Question

For the qualitative part of the current study, participants' evaluations for their digital literacy levels, ICT integration skills and the reasons behind their ICT integration habits were investigated after they were grouped as digital natives and digital immigrants according to their Digital Literacy Scale scores. The results were explained under five themes: Significance of Digital Literacy in FLE, Advantages of Digital Tools/ICT Integration into FLE, Disadvantages of Digital Tools/ICT Integration into FLE, Factors Behind Motivation/Demotivation towards Digital Tools/ICT Integration into FLE, and Reasons behind Limited/Effective Use of Digital Tools/ICT Integration into FLE. The results revealed that both digital natives and digital immigrants had similar and positive opinions on the advantages and disadvantages of ICT integrations. Moreover, their motivating and demotivating factors also included similar factors such as students' motivation and willingness to participate in classroom activities. However, low technical conditions in bad quality demotivates all teachers' attitudes to ICT integration into foreign language education practices. In accordance with the present results, previous studies have demonstrated that teachers' motivation to integrate ICT into language teaching approaches may increase if the students show eagerness and high participation to classroom activities integrated with digital and online materials (Braul, 2006; Salaberry, 2001). Another important finding was that both digital native and digital immigrant English teachers accepted the significance of digital literacy skills in 21st century' foreign language teaching methods. This finding supports the results of the study conducted by Basharat (2019) which suggested that one of the main elements to guide today's digital learners for educational goals may be having advanced digital tooling skills by the teachers.

The most obvious finding to emerge from the analysis may be the similar opinions of digital native and digital immigrant English teachers on the factors that affect their effective or limited ICT integration into classroom activities. Most of the participants stated that they need supportive parents and school principals who are aware of the significance and utilization of

technological tools in education practices. This result may be explained by the fact that a number of parents or school principals may consider digital tools not as a factor that assist learning outcomes but as a harmful factor that may abuse children's learning experiences. Therefore, the findings of the study might indicate that there may be a need for training about digital tools for the teachers, students, parents and school principals in order to raise awareness of making use of digital tools and ICT integration in foreign language education.

Another important finding was that especially digital immigrant English teachers do not prefer creating or editing their own digital materials, instead they would rather make use of online materials shared by others in advance. This result is consistent with the study of Albirini (2004) which revealed that teachers' digital literacy levels are quite low in Syria. A possible explanation for this finding may be the fact that teachers may need to develop their digital tooling skills to produce their original and authentic materials. Another explanation might be that teachers may not find enough time and opportunity to create their own digital materials when the curriculum load and limited time are taken into consideration.

CHAPTER SIX

Implications, Recommendations and Conclusions

Both in the Turkish context and the international context, it has been widely accepted that digital resources and ICT integration into FLE provide a variety of chances for language learners to practice their language abilities interactively, get rapid feedback, and develop their language skills in a more dynamic and authentic learning environment. When new learners' profiles and their learning tendencies are taken into consideration, the role of the teachers becomes crucially important in meeting students' recent learning needs by giving importance to their commitment to digital tools. For instance, teachers who are proficient with digital tools can design engaging classes that encourage student engagement and information retention by utilizing online resources, multimedia, and interactive applications. Additionally, teachers who are proficient in using digital tools can successfully incorporate technology into the curriculum, developing students' problem-solving, critical thinking, and digital literacy skills. In this regard, investigating the digital proficiency levels of English teachers and their attitudes toward ICT integration is a very important contribution to the literature. Thus, the current study aimed to investigate Turkish EFL teachers' digital literacy levels and their attitudes to ICT usage in foreign language education by conducting two scales and one-on-one interviews with English teachers in Artvin Province. Then, the data collection process began with scales that aimed to examine English teachers' digital literacy skills and their attitudes to ICT integration into FLE practices. After the quantitative data collection procedure, semi-structured interviews were implemented with six digital native and six digital immigrant English teachers to gather deeper information and to obtain a deeper understanding of their digital literacy competencies and their ICT integration habits in foreign language teaching. Later, the quantitative data was analyzed by conducting several tests on SPSS and the qualitative data was analyzed by descriptive data analysis. Finally, the findings were presented with possible reasons and explanations. On the other hand, the current study had several limitations. More reliable and valid data could have been collected with a larger sample group. Classroom observation could be implemented on the condition that there was more time so that there could be more data to be able to analyze and more deeply understand the relationship between English teachers' digital literacy levels and their attitudes to ICT use in foreign language teaching. In addition, the number of semi-structured interviews could be increased for more information related to English teachers'

perceptions, beliefs and attitudes to ICT integration. Moreover, similar studies may be conducted in different cities or regions in order to reach more data on this topic.

Implications

The study focused on English teachers' digital literacy levels and their attitudes to ICT usage in ELT. Several themes came forwards with the findings of the study. English teachers mostly had high levels of digital proficiency and they had generally positive attitudes to ICT integration into foreign language education. On the one hand, nearly all of the participants were aware of the significance of digital tools and ICT integration on the other hand they accept the disadvantages of misusing digital resources. In addition, the biggest source of English teachers' motivation to use ICT in foreign language education practices derived from students' tendency, interest and eagerness to involve in digital materials. However, restrictive curriculum load, lack of parental support and discouraging approaches of schools' principals were the factors that affected English teachers' ICT integration habits negatively.

The first research question of the study examined EFL teachers' digital literacy levels. The results revealed that English teachers mostly had high proficient levels of digital literacy when their scores were analyzed. Therefore, it can be indicated that digital literacy has a significant role for English teachers that increases teaching and instructing skills. Thus, both pre-service and in-service English teachers' digital proficiency levels can be modified with the help of training. The course books used in ELT might include interactive and digital activities that can be integrated with online materials. In the context of students who are digital natives, English teachers' digital literacy abilities may be one of the highest importance. Learners who are "digital natives," or those who were born into a technologically advanced society, have a high level of comfort and familiarity with digital tools. Therefore, in order to properly engage and connect with these students, English teachers must have strong digital literacy skills. Therefore, the study might indicate that professional development programs, collaborative learning communities and integration of technology in teacher education programs may be helpful to increase the digital literacy levels of English teachers.

The second research question examined English teachers' attitudes to ICT integration into ELT. The results showed that English teachers mostly had positive attitudes to the usage of ICT in English language teaching. It can be indicated that English teachers have been aware that today's students prefer innovative and digital learning to traditional teaching methods. Therefore, English teachers often benefit from ICT integration while planning the course content and teaching process in foreign language learning environments. When the significance of ICT integration into ELT taken into consideration, it can be suggested that training and

workshops can be planned in order to increase English teachers' ICT integration skills. Also, teachers may be involved in collaborative learning communities that aim to introduce effective ICT integration for English teachers.

The third question of the current study also aimed to investigate whether there is a significant correlation between English teachers' digital literacy skills and their attitudes to ICT usage in ELT. The results showed that there is a meaningful relationship between English teachers' digital literacy competencies and their attitudes to ICT integration into FLE practices. Therefore, it might be indicated that English teachers' high levels of digital literacy skills seemingly positively affect their attitudes towards the ICT integration into English language teaching practices. In fact, the digital literacy levels of ELT teachers play a significant role in terms of the tools they would choose in their instruction and the sort of teaching strategy they would follow, especially regarding technology integration.

The last research question of the study aimed to investigate the evaluations of English teachers with different digital literacy levels (digital native and digital immigrant) at primary, secondary and high school levels regarding the ICT integration into foreign language education. The main message the findings for the fourth question give is that both digital native and digital immigrant English teachers accept the significance and role of digital literacy skills and ICT integration skills in foreign language education practices. On the other hand, the findings of the last research question might indicate that English teachers' positive attitudes to using digital tools in classrooms increase when students show interest and willingness to participate in learning activities. In the light of this result, it can be concluded that students' awareness and motivation for making use of digital tools effectively inside and outside of the classroom might be increased with the help of training on the advantages and disadvantages of digital tools. Another factor that affects the attitudes of English teachers toward making use of ICT may be technical problems and limited technological conditions. Therefore, it might be indicated that the physical conditions of schools and classrooms can be modified by taking into consideration today's learners' commitment and interest in digital tools. Another important finding was that most of the digital immigrant English teachers had difficulty in creating their own digital materials because of limited time, curriculum load or low digital literacy skills. In this regard, it can be indicated that supportive training programs on increasing digital literacy competencies may be provided to English teachers.

Recommendations for Practice

The results of the study can be interpreted in different ways. There is a rising demand for English teachers who are also digital natives to work with the generation of students known

as "digital natives" today. Teachers of English who are digital natives have a thorough awareness of and a high level of competency in using technology and digital tools. Overall, in bridging the technological divide between teachers and students, digital native English teachers are crucial. Teachers might increase their digital literacy levels by taking part in professional development programs. They can attend conferences, workshops, and seminars on digital literacy in foreign language education. English teachers may collaborate with their colleagues who possess a high level of digital literacy. They can share ideas and gain knowledge from one another so that their digital literacy proficiencies might be increased. Another recommendation might be that they can create or join online communities which consist of online forums and communities focusing on teaching English or digital literacy in the classroom. Policymakers and program planners may organize seminars, webinars or training for teachers, students and parents in order to increase their digital tooling skills and awareness and to fill the gap between digital natives and digital immigrants.

The findings of the current research indicate that English teachers might consider technical problems and low-quality of technological conditions as demotivating factors that affect their ICT integration attitudes negatively. Thus, the technical and technological conditions in schools and classrooms can be improved so that English teachers and students can more efficiently utilize the integration of ICT into foreign language education. Another issue that may concern teachers' habits of ICT integration and making use of digital tools may be the addiction risk of learners. In this regard, both parents and students can be trained about the correct and reliable usage of digital tools. Another obstacle that may negatively affect the habits of English teachers to benefit from ICT integration effectively may be the concern of training intensive curriculum and course content in a limited time. In this regard, the curriculum burden can be lightened by policy makers and content supporting ICT integration can be included more in textbooks.

Recommendations for Future Research

This study aimed to explore EFL teachers' digital literacy levels and their attitudes to ICT integration into ELT practices. Both scales and semi-structured interviews were used as data collection tools. Teachers' digital literacy levels, and their attitudes to the usage of ICT, and the correlation between them was revealed with the help of data collection tools. Additionally, future studies might also involve classroom observations for the data collection process. Thus, researchers would find the chance to observe English teachers' digital tooling skills and their ICT integration habits in real classroom environments. As a result, there would

be more data to deeply analyze and reveal teachers' attitudes to ICT integration into ELT practices.

This study was conducted in Artvin province in Turkey. In order to obtain more comprehensive and detailed data and information related to English teachers' digital literacy competencies and their attitudes to ICT integration, future studies may be conducted in different regions and cities in Turkey. Moreover, the participants of the study might be increased so that there would be more data to analyze on teachers' digital skills and their attitudes to ICT usage in ELT practices. Also, the current study included only primary, secondary and high school levels. Future studies may also include university-level teachers and instructors to compare and contrast English teachers' digital tooling competencies and their attitudes toward making use of ICT in English language teaching.

Conclusion

This study aimed to investigate Turkish EFL teachers' digital literacy levels and their attitudes to ICT usage in foreign language education practices and to explore if there is a significant correlation between ELT teachers' digital literacy levels and their attitudes to ICT integration into English language teaching. Since today's learners are considered as digital natives and their interest and eagerness to digital tools are intense, English teachers need to update and adjust their teaching skills, approaches and strategies by taking into consideration learners' great commitment to digital tools. Therefore, it was crucial to investigate English teachers' digital tooling skills and their ICT integration attitudes. Additionally, the possible reasons behind their effective or limited usage of ICT in their teaching experiences may be a crucial source of key points about what kind of adjustments or modifications can be planned for the future. Overall, the results showed that English teachers had high levels of digital proficiency and they mostly had positive attitudes to ICT integration into ELT. Moreover, the study revealed that there was a significant correlation between English teachers' digital literacy levels and their attitudes to ICT usage in classroom activities. Both digital immigrant and digital native English teachers accepted the significance and the role of digital literacy and ICT integration for today's students' way of foreign language learning. However, ELT teachers accepted the disadvantages of digital tools when misused or overused. Most ELT teachers stated that their motivation and positive attitudes to ICT integration increase if the students eagerly participate in digital materials. On the other hand, technical problems, poor technological conditions and lack of parental support were recorded as demotivating factors that affect ELT teachers' enthusiasm to make use of ICT in classroom activities. Therefore, some

recommendations were put forward in order to overcome these problems by increasing ELT teachers' digital tooling and ICT integration skills.



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APPENDICES

Appendix 1. Digital Literacy Levels Scale for English Teachers

PART I: PERSONAL INFORMATION

Please answer the questions below with your personal information.

1. Please select your *gender*.

MALE:		FEMALE:	
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2. Please fill in your age below.

	years old.
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3. Please fill in your *years of teaching experience* below.

	years.
--	--------

PART II: SCALE ON EFL TEACHERS' DIGITAL LITERACIES

QuestionNo	Please select your answers by considering yourself-efficacies concerning the aspects of digital literacy mentioned in the questions.	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
	<i>I am confident that I can...</i>					
1	Use digital tools/software for private purposes.					
2	Find and evaluate information online.					
3	Work with digital resources.					

4	Solve challenges with digital tools.					
5	Use digital tools/software for professional or administrative purposes.					
6	Communicate with others using digital tools/software.					
7	Set up digital tools/software on a computer.					
8	Participate in online communities.					
9	Collaborate with others (e.g, colleagues) online.					
10	Explore new digital tools/software.					
11	Learn how to use new digital tools/software					
12	Reflect on the effectiveness of my use of digital tools/software in teaching.					
13	Evaluate the impact of my use of digital tools/software on student learning.					
14	Align the use of digital tools/software to learning outcomes.					
15	Identify digital tools/software for enhancing student learning.					
16	Evaluate limitations in the use of digital tools/software in teaching and learning.					
17	Leverage technology to improve student learning.					
18	Implement appropriate digital tools/software for student learning.					
19	Employ digital tools/software to foster student engagement.					
20	Design digital learning activities.					
21	Promote active learning with digital tools/software.					
22	Set up digital activities that support learning.					
23	Create challenging digital learning experiences.					
24	Foster independent learning through digital tools/software.					
25	Address learner differences and needs in the use of digital tools and resources.					
26	Produce digital teaching and learning materials.					
27	Foster written communication among my students through digital tools/ software.					

28	Foster oral interaction among my students through digitaltools/software.					
29	Support students in developing ownership of their learningthrough the use of digital tools/software.					
30	Support autonomous learning experiences through theintegration of digital tools and resources.					
31	Promote collaborative learning through onlinecommunities.					
32	Design a variety of summative assessments (e.g, exams) in a digital environment.					
33	Design a variety of formative assessment activities (e.g, feedback opportunities) in a digital environment.					
34	Offer feedback to students through digital tools/software.					
35	Make alternative digital tools/software available forstudents to improve their learning.					
36	Communicate with others about their performance in a digital environment.					
37	Monitor student learning through digital tools andresources.					
38	Adapt my teaching strategies to a digital environment.					
39	Maximize learning through digital tools and resources.					
40	Design a variety of digital visualizations.					
41	Empower learners in the use of digital tools.					
42	Creatively use digital tools/software in the classroom tochallenge my students' conceptions of learning.					
43	Support learner creativity by using digital tools andresources.					
44	Encourage learners to think freely by using various digitaltools and resources.					
45	Engage students in critical reflection by using particulardigital tools and resources.					
46	Help students address their learning challenges throughdigital tools and resources.					
47	Encourage students to come up with new ideas by usingdigital tools and resources.					
48	Foster digital collaboration among the students.					
49	Create challenges that provoke students to think in different ways through the use of digital tools.					
50	Support students in building digital capacity to deal withlearning challenges.					

Appendix 2. Attitudes of English Teachers to ICT Integration into ELT SCALE

Instructors' Attitudes towards e-Teaching Technology

Survey Sections/Items	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
Perceived self-efficacy					
1. I feel confident making online instruction.					
2. I can teach actively in the e-learning environment of Blackboard.					
3. I feel confident using e-learning environments.					
4. I intend to use e-learning to assist my teaching.					
5. I intend to use online instruction to assist my teaching.					
6. I intend to use the Internet to assist my teaching.					
7. I have more opportunities to demonstrate my own teaching styles in the e-learning environment more ably.					
Perceived enjoyment					
8. I enjoy using computers as a teaching assisted tool.					
9. I enjoy using e-learning environment for teaching purpose.					
10. I enjoy using online instruction for teaching.					
11. I like learning videos in online instruction.					
12. I like colourful pictures in online instruction.					
13. I like instant messaging, emailing, and discussion boards, and the virtual classroom of Blackboard, using Elluminate! Live Sessions.					
14. I like the animated online instruction.					
Perceived usefulness					
15. I believe using e-learning environments is helpful for learning.					
16. I believe using e-learning environments is helpful for teaching.					
17. I believe using online instruction is useful for teaching.					
18. The e-learning environment improves my thinking skills.					
19. The e-learning environment provides various aspects to solve problems.					

Perceived system satisfaction	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
20. I am satisfied with using e-learning environments.					
21. I am satisfied with using MS-Word, MS-PowerPoint files as multimedia instruction.					
22. I am satisfied with using online instruction.					
23. I can discuss actively with my students in the e- learning environment.					
24. I can post and exchange information actively in the e- learning environment.					

Appendix 3. Semi-Structured Interview Form on the Evaluations of English Teachers for Digital Literacy and ICT Integration into FLE

SEMI STRUCTURED INTERVIEW FORM

Teacher:	
Teacher's Experience Year:	
Digital literacy:	
Date:	

1) Can you please introduce yourself.

-What is your educational back ground?

-How long have you been teaching?

2) What does digital literacy mean to you?

-What is the importance of it in foreign language education?

-How does it affect English teachers' teaching skills?

3) What can be the advantages of using digital tools and BIT in foreign language education?

4) What can be the disadvantages of using digital tools and in foreign language education?

5) How often do you make use of BIT for educational purposes?

6) What may be the reasons for your limited/effective usage of BIT?

7) What kind of factors increase/decrease your motivation to use BIT?

Appendix 4. Ethical Statement

T.C.
ATATÜRK ÜNİVERSİTESİ
SOSYAL VE BEŞERİ BİLİMLER ETİK KURULU
Eğitim Bilimleri Birim Etik Kurul Başkanlığı
PROJE DEĞERLENDİRME FORMU

Projenin/Çalışmanın Adı: Danışmanlığını Doç. Dr. Merve GEÇİKLİ'nin yürüttüğü yüksek lisans öğrencisi Serpil DOĞAN'ın "İngilizce Öğretmenlerinin BIT Kullanım Tutumlarında Dijital Okuryazarlık Faktörü" isimli tez önerisi çalışması ile ilgili Etik Kurul uygunluk onay belgesi talep edilmesi.

Gönderildiği Tarih: 30.03.2023

Teslim Tarihi: 30.03.2023

Değerlendirenin Adı Soyadı: Sosyal ve Beşeri Bilimler Etik Kurulu Başkanlığı Adına

Prof. Dr. Ufuk ŞİMŞEK
Etik Kurul Başkanı

İmza :

Bu Tez Öneri uygundur: ☒

Gerekçe/Açıklama: Yapılacak çalışmada yaklaşım ve yöntemler dikkate alınarak, konu ile ilgili çalışmaların gerçekleştirilmesinde etik ve bilimsel açıdan herhangi bir sakınca bulunmamaktadır.

Bu Tez Öneri uygun değildir: ☐

Gerekçe/Açıklama

T.C.
ATATÜRK ÜNİVERSİTESİ REKTÖRLÜĞÜ
SOSYAL VE BEŞERİ BİLİMLER ETİK KURUL BAŞKANLIĞI
Eğitim Bilimleri Birim Etik Kurulu
ERZURUM

Toplantının Mahiyeti :Etik Kurul
Toplantının Tarihi :30.03.2023
Toplantının Sayısı :04

Karar-15:Danışmanlığını Doç. Dr. Merve GEÇİKLİ'nin yürüttüğü yüksek lisans öğrencisi Serpil DOĞAN'ın "İngilizce Öğretmenlerinin BIT Kullanım Tutumlarında Dijital Okuryazarlık Faktörü" isimli tez önerisi çalışması ile ilgili etik kurul onay belgesi talebi ile ilgili husus görüşüldü

Yapılan görüşmelerden sonra adı geçen in "İngilizce Öğretmenlerinin BIT Kullanım Tutumlarında Dijital Okuryazarlık Faktörü" isimli tez çalışması ile ilgili çalışmaların gerçekleştirilmesinde etik ve bilimsel yönden sakınca bulunmadığına,

oy birliği ile karar verilmiştir.

Prof. Dr. Ufuk ŞİMŞEK
Birim Etik Kurul Başkanı

Birim Etik Kurul Başkan Yardımcısı

Prof. Dr. Betül ASLAN
Birim Etik Kurul Üyesi

Prof.Dr. Muhsine BÖREKÇİ
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Prof.Dr. Mustafa CİHAN
Raportör

T.C.
ATATÜRK ÜNİVERSİTESİ
SOSYAL VE BEŞERİ BİLİMLER ETİK KURULU
Eğitim Bilimleri Birim Etik Kurulu Karar Formu

KARAR BİLGİLERİ	Toplantı Sayısı: 04 Karar No: 15	Toplantı Tarihi: 30.03.2023
	Aşağıda bilgileri verilen tez ile ilgili çalışmanın, etik ilkeler açısından değerlendirilmesi isteği ile ilgili husus görüşüldü. Yapılan görüşmelerden sonra; söz konusu tez ile ilgili yapılacak çalışma için, araştırmanın gerekçe, amaç, yaklaşım ve yöntemleri dikkate alınarak konuyla ilgili çalışmanın gerçekleştirilmesinde etik ve bilimsel yönden sakınca bulunmadığına, Etik Kurulu oy birliği ile karar vermiştir.	
ÇALIŞMA BİLGİLERİ	Proje Yürütücüsü: Serpil DOĞAN Çalışma Konusu: İngilizce Öğretmenlerinin BIT Kullanım Tutumlarında Dijital Okuryazarlık Faktörü	

EĞİTİM BİLİMLERİ BİRİM ETİK KURULU		İMZA
Prof. Dr. Ufuk ŞİMŞEK	Etik Kurul Başkanı	
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