

**BAŞKENT UNIVERSITY
INSTITUTE OF EDUCATIONAL SCIENCES
DEPARTMENT OF FOREIGN LANGUAGES
MASTER PROGRAM OF ENGLISH LANGUAGE TEACHING
WITH THESIS**

**INVESTIGATION OF INFORMATION LITERACY LEVELS OF EFL
TEACHERS**

PREPARED BY

ÜMİT ORAL

MASTER THESIS

ANKARA – 2022

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ADVISOR

ASSIST. PROF. GÜLİN DAĞDEVİREN KIRMIZI

ANKARA - 2022

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EĞİTİM BİLİMLERİ ENSTİTÜSÜ

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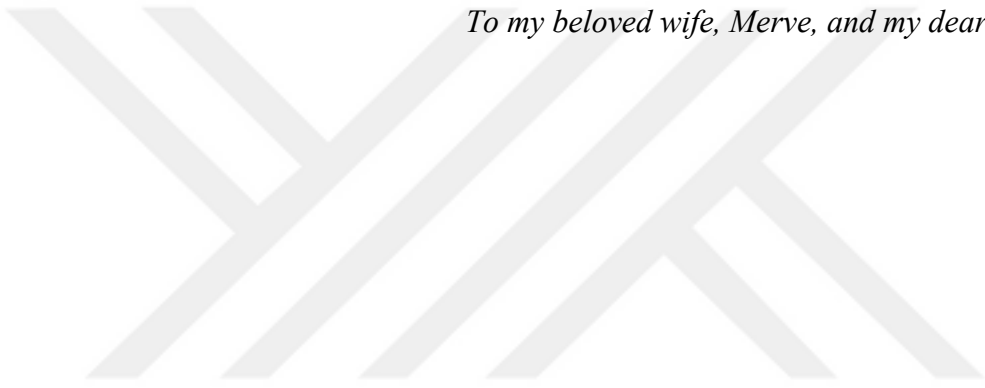
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To my beloved wife, Merve, and my dear son, Barış.

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Ankara 2022

ÖZET

Ümit ORAL

İngilizce Öğretmenlerinin Bilgi Okuryazarlık Seviyelerinin İncelenmesi

Başkent Üniversitesi
Eğitim Bilimleri Enstitüsü
Yabancı Diller Eğitim Anabilim Dalı
İngiliz Dili Öğretimi Tezli Yüksek Lisans Programı

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Bu araştırma, yabancı dil olarak İngilizce (EFL) öğretmenlerinin bilgi okuryazarlık düzeylerini yaş, cinsiyet, mezun olunan fakülte, eğitim düzeyi, okul düzeyi ve meslekteki deneyim yılı gibi değişkenlere dayalı olarak incelemiştir. 208 İngilizce öğretmeni, çevrimiçi veya yüz yüze paylaşılan ölçeği doldurarak çalışmaya katılmıştır. Araştırmada karma yöntem uygulanmıştır. Nicel veriler için demografik bilgi anketi ve Bilgi Okuryazarlığı Ölçeği (Adıgüzel, 2011) kullanılmıştır. Elde edilen veriler IBM SPSS 22 paket programında analiz edilmiş ve katılımcıların puanlarını karşılaştırmak için tanımlayıcı istatistikler kullanılmıştır. Ölçümler normal dağılımlara uymadığından bağımsız ve bağımlı değişkenler arasındaki ilişkiyi test etmek için Kruskal Wallis ve Mann Whitney U testleri kullanılmıştır. Nitel veriler için görüşmeye gönüllü olarak katılan 20 katılımcıya, 21. yüzyıl becerileri, bilgi okuryazarlığı ve bilgi okuryazarlığının mesleki gelişim ve dersi anlatma şekli üzerindeki etkileri hakkındaki görüşlerini belirlemek amacıyla dört açık uçlu soru ve tamamlayıcı sorular sorulmuştur. Nicel veriler, İngilizce öğretmenlerinin bilgi okuryazarlığı düzeyleri ile yaş, cinsiyet, mezun olunan fakülte, eğitim düzeyi, okul düzeyi ve meslekteki tecrübe arasında istatistiksel olarak anlamlı bir ilişki olmadığını göstermiştir. Ancak, bilgi kullanımında yasal ve etik kurallar alt ölçeğindeki istatistikler kadın İngilizce öğretmenlerinin erkek meslektaşlarına göre daha yüksek bilgi okuryazarlık seviyesine sahip olduğunu göstermiştir. Nitel veriler, görüşülen kişilerin çoğu 21. yüzyıl becerileri terimini duyduğunu, ancak sadece birinin bilgi okuryazarlığını 21. yüzyıl becerisi olarak belirttiğini göstermiştir. Ayrıca, çoğu, bilgi okuryazarlığı terimine aşina olduklarını ancak terimi geniş bir şekilde tanımlayamadıklarını belirtmişlerdir. Görüşülen kişilere İngilizce öğretmenlerinin bilgi okuryazarlık düzeylerinin mesleki gelişimlerine ve sınıflarda dersi anlatma şekline etkisi olup olmadığı sorulmuş ve neredeyse tamamı bilgi okuryazarlık seviyesinin mesleki gelişimlerini ve dersi anlatma şeklini olumlu etkileyeceğini belirtmiştir.

Anahtar Kelimeler: 21. Yüzyıl Becerileri, Bilgi Okuryazarlığı, Bilgi ve İletişim Teknolojisi Becerileri, EFL Öğretmenleri, Dil Öğretimi

ABSTRACT

Ümit ORAL

Investigation of Information Literacy Levels of EFL Teachers

**Başkent University
Institute of Educational Sciences
Department of Foreign Languages
Master Program of English Language Teaching with Thesis**

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The study investigated the information literacy levels of English as a Foreign Language (EFL) teachers based on such variables as age, gender, faculty of graduation, education level, level of school and years of experience in profession. 208 EFL teachers participated in the study by filling in the scale shared either online or face-to-face. Mixed method was applied in the study. For the quantitative data, demographic information survey and Information Literacy Scale (Adıgüzel, 2011) were used. The data obtained were analysed on IBM SPSS 22 package program, and descriptive statistics were used to provide the scores of the participants. As the measurement didn't fit normal distributions, Kruskal Wallis and Mann Whitney U tests were utilized in order to test the relationship between the independent and dependent variables. For the qualitative data, 20 of the participants, who volunteered to take part in the interview, were asked four open-ended questions and follow-up questions in order to determine their opinions about 21st century skills, information literacy and its impacts on professional development and the way EFL teachers teach the language. The quantitative data showed that there was no statistically significant relationship between information literacy levels of EFL teachers and age, gender, faculty of graduation, education level, level of school and years of experience in profession. However, in the legal and ethical regulations in information use subscale, the statistics indicated that female EFL teachers had higher information literacy level than their male counterparts. The qualitative data showed that most of the interviewees had heard of the term 21st century skills, yet only one of them stated information literacy as a 21st century skill. Most of them also stated that they were familiar with the term information literacy, but they were unable to define the term broadly. The interviewees were asked whether information literacy levels of EFL teachers had an effect on their professional development, and the way they teach the language, and nearly all of them stated that it would positively affect them.

Key Words: 21st Century Skills, Information Literacy, Information and Communication Technology Skills, EFL Teachers, Language Teaching

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LIST OF ABBREVIATIONS

ALA	American Library Assosiaction
EBA	Education Information Network
EFL	English as a Foreign Language
ICT	Information and Communication Technology
IL	Information Literacy
SCONUL	Society of College, National and University Libraries
TRT	Turkish Television and Radio Association
YÖK	Council of Higher Education

CHAPTER I

INTRODUCTION

This study investigates the information literacy levels of English as a foreign language (EFL) teachers based on variables such as age, gender, faculty of graduation, education level, level of school, and years of experience in the profession. The introduction part of the study consists of the background of the study, problem statement, the purpose of the study, the significance of the study, the limitations of the study and the definitions of the key terms.

1.1. Background of the Study

With the advent of technological devices, such as personal computers, laptops, and smartphones, together with the internet, information has become accessible and available anywhere anytime. Also, producing information has become easier than it was a few decades ago. However, whether all the information accessible on the internet is reliable or scientific is a matter of debate. Kurbanoglu (2002), one of the most prominent researchers working on information literacy not only in Turkey but also in the world, describes the internet, also called as worldwide web, as a platform where its users can share any information that they have without confronting any difficulties, and therefore she urges internet users to be suspicious of the information that they have found on the internet since, unlike printed materials, the credibility of the information on the internet is rarely checked by professionals like an editor or domain expert. In the same study, Kurbanoglu also accentuates the abundance of information found on the net thanks to web browsers, which compels a learner to evaluate the information well before using it to produce something new. Taking these points into account, learners must clear all the doubts in their mind by checking the reliability of the source, and make an evaluation of the information available well before the use of the information found on the net. To achieve this, they must be information literate because people who have information literacy skills such as determining the information need, evaluating the information, and understanding the legal and ethical issues are able to handle such a situation.

The use of the internet and technological devices has become so prevalent in the societies of information that there is almost no occupation which hasn't been affected by the changes it has brought about. Among these professions, teachers, who devote themselves to helping their students self-actualize and come up with new ideas that might change the

course of history, need to adapt to these changes more than members of any other profession since the information created by using these latest advancements forms a basis for their profession. Kurbanoglu (2003) states that almost all professions in modern societies now require the use of computer technology. As a result, information literacy together with computer literacy skills has become an essential component of an individual's life. Every teacher or student, therefore, is expected to be capable of accessing valid and related information about the topic they are studying, and making use of it based on their needs, which shows information literacy is a crucial competence that everyone should possess because today's information society is characterized by a huge volume of information, and therefore people in this society are expected to navigate and process the information rather than memorizing it (Wanquan & Tsytsiura, 2021).

As English is taught as a foreign language in Turkey, neither teachers nor students have many chances to use the language in their daily lives. Therefore, both students and teachers are mostly dependent on written and online sources in order to improve themselves not only professionally but also academically. In this sense, every teacher is expected to have information literacy skills which enable them to access the information and process it for their classes.

In this regard, this study investigated the information literacy levels of English language teachers based on variables such age, gender, faculty of graduation, education level, level of school, and years of experience in teaching,

1.2. Problem Statement

Technological advancements in the 21st century have changed the way people live, work and reach information a lot. Therefore, today's EFL teachers are supposed to possess different characteristics from the teachers in the past in order to keep up with the pace of the information age or, in other words, information society.

In the literature, there are several studies on 21st century skills, which are crucial for everyone from teachers to students to literally survive in society. Although, in these studies, categorizations of 21st century skills may slightly vary, the essence that they are centred around is the same to a great extent. In one of those studies, 21st century skills were categorized into four groups: ways of thinking, ways of working, tools for working and living in the world (Binkley et al., 2012). Ways of thinking category includes creativity and innovation, critical thinking, problem solving, decision making, learning to learn and

metacognition. Ways of working category consists of communication and collaboration. Tools for working compromises information literacy and ICT literacy. Living in the world category includes citizenship – local and global, life and career, and personal and social responsibility together with cultural awareness and competence. In another study (Partnership for 21st Century Skills, 2009), 21st century skills are divided into four categories: life and career skills, learning and innovation skills, core subjects and 21st century themes and lastly information, media and technology skills. Unlike the other studies previously mentioned which underline the importance of 21st century skills in every area of life, EnGauge framework for 21st century skills (Lemke, 2002, p. 5) primarily focus on academic achievement and learning. As in the Partnership for 21st Century Skills, this framework also consists of four categories: digital-age literacy, inventive thinking, effective communication and high productivity. Each of these categories covers different topics from visual and information literacies to interactive communication and effective use of real-world tools.

As can be seen from some of the aforementioned studies, 21st century skills are at the core of education in order to raise students who will work at jobs that don't exist right now. Information literacy, one of the 21st century skills, enables teachers to reach any information that they would like and to process it for further use in their classes. In the literature, there are several studies on 21st century skills of teachers, which focus on the information literacy together with other 21st century skills. However, there is little research focusing on the information literacy levels of EFL teachers only. Therefore, the main purpose of this study is to examine information literacy levels of EFL teachers regarding variables such as age, gender, faculty of graduation, education level, level of school and years of experience in teaching English.

1.3. Purpose of the Study

The primary purpose of the study was to determine information literacy levels of EFL teachers who work at primary, secondary and high schools based on various variables such as age, gender, faculty of graduation, education level, level of school, and years of experience. The data required for the study were collected through a Likert-type questionnaire and four interview questions together with follow up questions.

1.3.1. Research questions

To this end, this study aimed to address the following research questions:

1. Is there a statistically meaningful difference between information literacy levels of EFL teachers and age?
2. Is there a statistically meaningful difference between information literacy levels of EFL teachers and gender?
3. Is there a statistically meaningful difference between information literacy levels of EFL teachers and faculty of graduation?
4. Is there a statistically meaningful difference between information literacy levels of EFL teachers and education level?
5. Is there a statistically meaningful difference between information literacy levels of EFL teachers and level of school?
6. Is there a statistically meaningful difference between information literacy levels of EFL teachers and years of experience?

1.4. Significance of the Study

A study on information literacy (Wijetunge & Alahakoon, 2005) suggests that in an information literate environment, teachers can improve students' participation in lessons by providing instruction in a more adventurous way. Therefore, one of the intentions of the study was to raise awareness about how important it is to be information literate for EFL teachers. As stated by Shishkovskaya, Bakalo and Grigoryev (2015), today's society requires specialists and experts who can embrace the circumstances of the ever-changing world and come up with new ideas and use them in practice effectively. Thus, information literate EFL teachers can turn their classes into more effective and attractive ones through the correct use of both written and digital resources.

In recent years, some research has been conducted as to information literacy and teachers, yet a great majority of them focused on information literacy levels of teachers from different subject areas. To give an example, Korkut & Akkoyunlu (2008) examined information and computer literacy perceived self-efficacy of French language teacher candidates. Demirel & Akkoyunlu (2017) also studied lifelong learning tendencies and information literacy self-efficacy of teacher candidates from primary education department. In another study, Sural & Dedebali (2018) investigated curriculum and information literacy levels of teacher candidates from primary school, preschool, science and social sciences

education departments. However, far too little attention has been paid to the information literacy levels of EFL teachers. Therefore, this study also intended to fill this gap in the field.

1.5. Limitations of the Study

The data were going to be collected in person; however, because of the worsening conditions of COVID-19 pandemic, most of the data had to be collected online. The number of participants who filled in the questionnaire in person is very limited. As the scale was shared online, gathering the necessary data for the study lasted longer than expected. Participants were chosen from the EFL teachers working in Ankara as convenience sampling was used in the study. If EFL teachers from all over Turkey had been included in the study, the results about the information literacy levels of EFL teachers would be more comprehensive. Additionally, the interviews were initially planned to be carried out face-to-face, yet due to COVID-19, they had to be made online, as well.

1.6. Definitions of Key Terms

21st Century Skills: skills that are required to function effectively at work, school and in life in the 21st century (Ananiadou & Claro, 2009).

Information literacy: a set of abilities requiring individuals to 'recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information (American Library Association, 2000).

English as a Foreign Language (EFL) Teachers: Teachers who teach English as a foreign language at primary, secondary and high schools.

Information Need: A subjective and relative concept that exists in the mind of an individual, and it's also described as the recognition of existence of uncertainty in an individual's mind (as cited in Ucak & Kurbanoglu, 1998).

Ethical and Legal Regulations: Rules that protect the intellectual property rights of a person who has produced the information that is used by someone else (ALA, 1995).

CHAPTER II

LITERATURE REVIEW

2.1. 21st Century Skills

Partnership for 21st Century Skills report (2009) categorized 21st century skills as core subjects and 21st century themes, life and career skills, learning and innovation skills, and information, media and technology skills. Core subjects includes reading in native language and learning a world language. Also, subjects like science, maths and arts are included in this category. 21st century themes are about the changing world and its requirements like health literacy, civic literacy and global awareness. Learning and innovation skills are critical thinking, problem solving, creativity and innovation, communication and collaboration. Information, media and technology skills comprises of information literacy, media literacy, and information, communications and technology literacy (ICT). Flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, leadership and responsibility are the components of life and career skills.

Ananiadou and Claro (2009) put forward a framework for 21st century skills. The framework consisted of three dimensions called information, communication, and ethics and social impacts, each of which has two sub-dimensions. In information dimension, information is studied in two sub-dimensions as information as source, the section in which the significance of information literacy is highlighted, and information as product. Whereas information as source sub-dimension consists of skills such as searching, selecting, evaluating and organizing information, information as product sub-dimension includes skills such as restructuring and modelling information and developing one's own ideas.

Communication dimension aims to help students become both a lifelong learner and a member of community who has a say in public and a sense of responsibility towards others. Effective communication, either of the two sub-dimensions of communication dimension, requires the information produced be shared and transmitted effectively and this can only be achieved by using available tools and correct language. In the other sub-dimension, collaboration and virtual interaction, the ability to attend digital platforms and have a contact with virtual groups of friends and interests is prioritized.

Ethics and social impact dimension is made up of social responsibility and social impact sub-dimensions. Social responsibility sub-dimension, as the title itself suggests, necessitates taking responsibilities in society because the actions, whether positive or negative, that people take have a huge impact on society. Social impact subdimension is, on the other hand, all about developing consciousness about the challenges of this new digital era that people are currently trying to adapt to.

21st century skills have been the focus of studies of many researchers like Trilling and Fadel (2009). In their book, they addressed every aspect of 21st century skills from what they are to how they can be integrated into education. While explaining the 21st century skills, they categorized them under three titles: Learning and Innovation Skills, Digital Literacy Skills and Career and Life Skills.

Trilling and Fadel place learning to learn, being creative and innovative, critical thinking, problem solving, and being good at communication and collaboration into Learning and Innovation Skills category as characteristics of 21st century individuals.

In the Digital Literacy Skills category, Trilling and Fadel mostly deal with information literacy, media literacy, and information and communication literacy. Information age requires individuals be equipped with the ability to access, evaluate, apply and manage information well, making information literacy one of the skills that every individual should possess. Additionally, in today's world where even official statements are made through digital platforms such as Twitter or Instagram, or e-books are replacing printed books, it has become a must that every individual use digital media to their benefit as much as possible. However, without information and communication technology literacy, achieving this doesn't seem possible at all, so it can be referred as a term that is prerequisite to not only media literacy but also information literacy.

In the last category, Career and Life Skills, the importance of flexibility and adaptability, initiative and self-direction, social and cross-cultural interaction, productivity and accountability and lastly leadership and responsibility is highlighted by Trilling and Fadel.

2.1.1. 21st Century Skills and English Language Education

The world has changed dramatically in the last few decades thanks to the advancements of technology. These substantial changes taking place all over the world have been felt

intensely in education sector, and consequently in English language teaching, as well (Mankara, 2020). Therefore, English lessons that today's children have should differ greatly from the ones that children in the past had because today's students are expected to have different skills in the 21st century such as creativity, critical thinking, collaboration, communication and digital literacy skills (Fadel & Trilling, 2009). These new skills made it inevitable to reconstruct the terms of English language teaching and learning (Çınar, 2021). Therefore, today's English languages should be reorganized in such a way that students can not only learn the language but also improve their 21st century skills at the same time. Some teachers of English feel confused or unsafe about how to integrate these skills into lessons despite being aware of their importance in today's world (Halvorsen, 2018). However, integrating these skills into English classes is not as difficult as EFL teachers presumed. For example, according to Halvorsen, critical thinking skill can be gained by students through communicative activities in the curriculum better than other skills. Students can be asked to do research about a topic, discuss it with their peers and come up with a product at the end of the activity. Another skill that students can easily acquire in an English lesson is creativity. When they are given a problem as a part of a writing activity, they can try to find their own solutions to this problem, which helps them improve their creativity skills. Additionally, collaboration and communication skills of students can be improved through pair or group work activities. Finally, digital literacy skills are presupposed to be possessed by today's students, who are digital natives. However, this is not necessarily true, so students should be educated about how to use and evaluate online sources because their knowledge of internet use may not go beyond checking their social media accounts (Halvorsen, 2018). Hence, teaching them useful language applications or websites available on the internet should be a part of English language education.

The research carried out by Ashraf, Ahmadi and Hossainnia (2017) indicated that 21st century skills had a significant effect on listening and speaking lessons. According to the results of the study, the students who participated in 21st century skills-based lessons outperformed their peers who had lessons carried out with traditional teacher-centred methods. This finding sheds light on the importance of 21st century skills in the context of English language teaching and therefore teachers of English should try to include as many 21st century skills as possible in their lessons in order to increase performance of their students.

Regarding the underlined points in the previous paragraph, it can be understood that 21st skills can be easily activated during English lessons and have a positive effect of learning the language. Therefore, they should be integrated into English lessons as much as possible.

2.1.2. Information literacy

The phrase “knowledge is power” has been uttered by a lot of important figures in societies from Bacon to Thomas Jefferson, which shows how important it is to be knowledgeable about any subject, whether it’s technology or education. Either way, it makes people strong and helps them to have a stronger voice in their community. In this regard, being information literate is of great importance to each member of information society. However, there is still not an exact definition of information literacy although it is a term that has been used for more than thirty years. Nevertheless, it has been defined by many different educational organizations like the Society of College, National and University Libraries (SCONUL) and the American Library Association (ALA). SCONUL defines information literacy as an umbrella term that includes concepts like digital, visual and media literacies, academic literacy, information handling, information skills, data curation and data management (Bent & Stubbings, 2011). According to ALA (2000), it is a collection of abilities helping people to know what information is needed at that moment, and to be capable of finding, assessing and using the needed information in an effective way. As can be understood from the definitions above, information literacy is the ability to know the reason why some specific information is needed and when it is exactly needed and how it can be achieved, evaluated and used ethically. Additionally, detecting source bias, knowing how to judge a popular versus scholarly source and how to evaluate a resource in terms of appropriateness to a topic is other abilities that an information literate person should have (Williams & Evans, 2008).

In today’s society, with the advent of technology, information is produced, transmitted and achieved much more easily than a few decades ago, which may cause information explosion and consequently information pollution. Therefore, in such an environment, reaching the exact information that one needs is crucial. However, finding relevant information is not enough itself. Being able to evaluate and use it within ethical frame is also an ability that everyone should possess.

2.1.2.1. Standards of information literacy

In order to determine whether an individual is information literate or not, American Library Association developed standards of information literacy. According to the report that they published (ALA, 2000), there are five standards through which one can understand the information literacy competency of an individual easily.

Table 2.1. Information Literacy Competency Standards for Higher Education (ALA, 2000, p. 8-14)

Standards of Information Literacy by ALA	
Standard 1	The information literate student determines the nature and extent of the information needed
Standard 2	The information literate student accesses needed information effectively and efficiently.
Standard 3	The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.
Standard 4	The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.
Standard 5	The information literate student understands many of the ethical, legal and socio-economic issues surrounding information and information technology.

In another study (Bundy, 2004), six information literacy standards were determined. Although the standards in Bundy's study may look similar to those of ALA in some respects, there are some other points that should be taken into consideration to assess the information literacy competency level of an individual.

Table 2.2. Standards of Information Literacy (Bundy, 2004, p.12-23)

Standards of Information Literacy by Bundy	
Standard One	The information literate person recognises the need for information and determines the nature and extent of the information needed
Standard Two	The information literate person finds needed information effectively and efficiently
Standard Three	The information literate person critically evaluates information and the information seeking process
Standard Four	The information literate person manages information collected or generated
Standard Five	The information literate person applies prior and new information to construct new concepts or create new understandings
Standard Six	The information literate person uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues surrounding the use of information

As can be understood from the standards given above, an information literate individual is expected to understand what kind of information is needed, and reach the information in an effective and efficient way. When the needed information is obtained, the individual is expected to analyse it and make use of it to his or her needs by combining the background information he or she has. During the process, social, cultural, ethical and legal issues should be taken into consideration, as well.

2.1.3. Models of information literacy

In literature, there are several information literacy models that show how one starts and finalizes information collection process.

2.1.3.1. Seven Pillars model

The Society of College, National and University Libraries, abbreviated as SCONUL, prepared a position paper about information skills in higher education in 1999. Seeing that little importance was given to information technology skills and information skills although it was claimed the society in which they lived was called information society, SCONUL

believed that they should somehow highlight the issue (SCONUL, 1999). According to the paper prepared by SCONUL, there are seven information skills that are based on two fundamental building blocks named as library skills and IT skills.

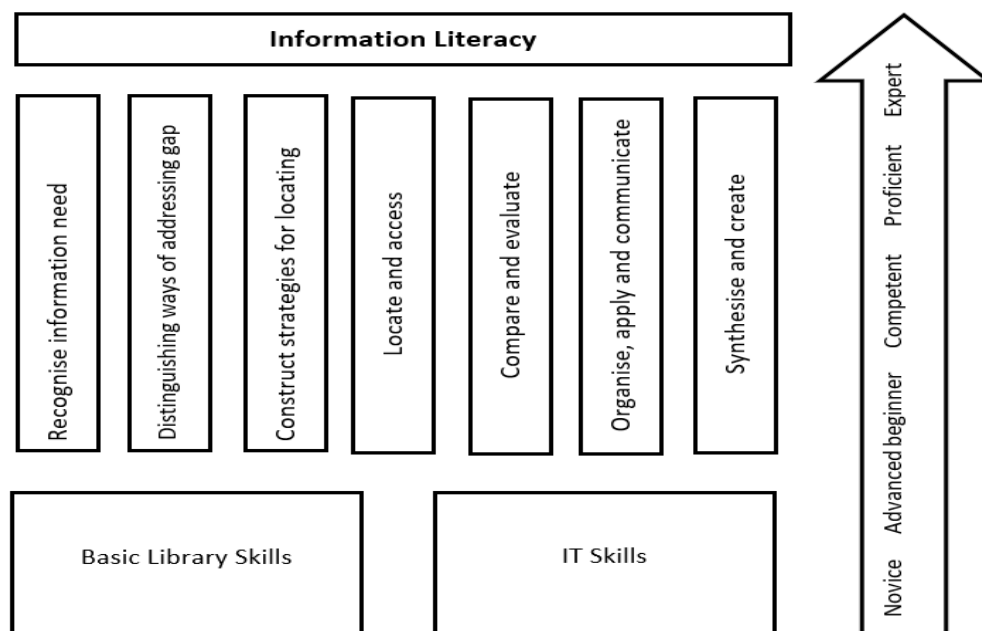


Figure 2.1. Seven Pillars Model (SCONUL, 1999, p.9)

As can be seen in the figure, basic library skills and information technology skills are seen as the fundamental skills to become information literate. Whether novice or expert, an information user needs these skills in order to succeed in information seeking process.

2.1.3.2. Big6 model

Big6 model, developed by Eisenberg and Berkowitz (1990), is one of the most used approaches to teaching and teaching information all around the world. It enables learners to combine search and use skills together with technology skills in such a way that they can easily find, use, apply and evaluate information that is required for some certain tasks and needs. Moreover, it is an approach that learners from every age can benefit from to overcome an information problem. The approach consists of six stages, each of which has two substages.

1. Task Definition

- 1.1. Define the information problem
- 1.2. Identify information needed

2. Information Seeking Strategies

- 2.1. Determine all possible sources
- 2.2. Select the best sources

3. Location and Access

- 3.1. Locate sources (intellectually and physically)
- 3.2. Find information within sources

4. Use of Information

- 4.1. Engage
- 4.2. Extract relevant information

5. Synthesis

- 5.1. Organize from multiple sources
- 5.2. Present the information

6. Evaluation

- 6.1. Judge the product (effectiveness)
- 6.2. Judge the process (efficiency) (Eisenberg & Berkowitz, 1990, p.3-4)

The stages given above suggests that in the early stages, learners mostly deal with the source of an information problem and the ways of reaching the available information, yet in the use of information stage, learners actively take part in the information seeking process, analyze and synthesize the information found in order to create new information. In the last stage, the effectiveness and efficiency of the process are examined.

2.1.3.3. Kuhlthau's Information Search Process model

Kuhlthau's Information Search Process model is an information literacy model that consists of six stages called initiation, selection, exploration, formulation, collection and presentation. Besides, unlike other models mentioned earlier, Kuhlthau's Information Search Process model claims that not only learners' competencies to search, find and evaluate information but also their feelings affect the process of information seeking (Kuhlthau, 2004).

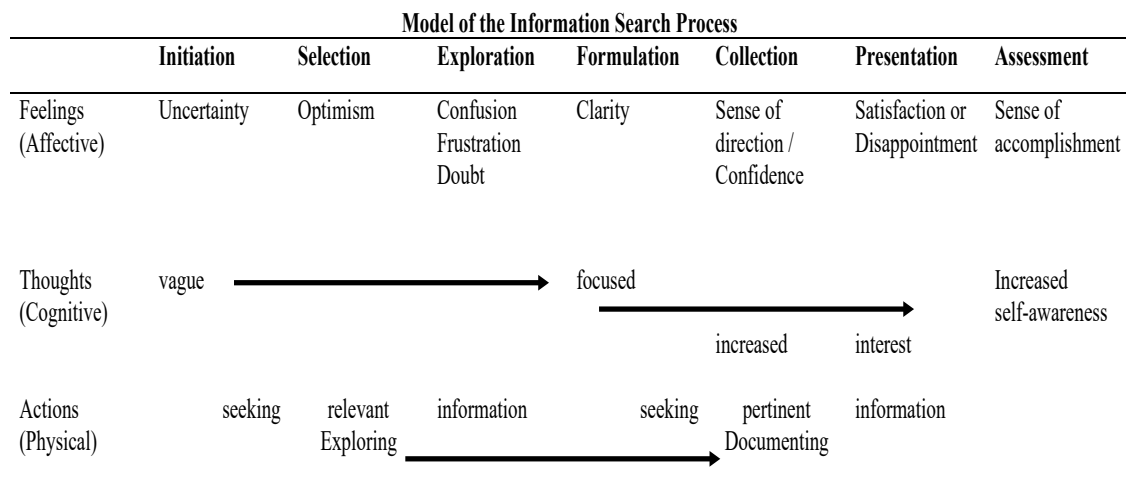


Figure 2.2 Model of the Information Search Process (Kuhlthau, 2004, p.82)

As can be seen in the figure given above, in the beginning of the information seeking process, the feeling that surrounds a learner is uncertainty and in the last stage it turns into a sense of accomplishment.

Kuhlthau's Information Search Process model includes six stages as stated earlier.

1. *Initiation*

Initiation is the stage at which learners happen to figure out that they lack necessary information and understanding. Uncertainty and apprehension are the feelings that learners are likely to experience.

2. *Selection*

Selection is the stage at which learners identify a general area, topic or problem and the feeling "uncertainty" is replaced with optimism and readiness to start searching for information.

3. *Exploration*

Exploration is the stage at which learners find inconsistent and unrelated information and the feelings "uncertainty, confusion and doubt" haunt learners very frequently, and thus they start feeling unconfident.

4. *Formulation*

Formulation is the stage at which learners have been able to focus on a topic from a perspective, and as confidence increases, uncertainty disappears.

5. *Collection*

Collection is the stage at which learners start gathering related information about a topic and interest and involvement in the topic increases and consequently uncertainty is subsided.

6. *Presentation*

Presentation is the stage at which learners form a new understanding with the information found, and therefore, they become ready to present it to others and put it into practice.

2.1.3.4. Pathways to Knowledge model

Pathways to Knowledge model was developed by Pappas and Tepe in 1998. It aims to show that the information seeking process is nonlinear, which means learners use different pathways to reach the information needed. This is because of the fact that they have distinctive learning styles and the nature of the information needed may also vary.

The model has six stages called appreciation, presearch, search, interpretation, communication and evaluation. The stages of appreciation and evaluation are thought to be more significant than the others because they are expected to exist during all the other stages, as well. Here is a table of stages and their function statements.

Table 2.3. Pathways to Knowledge Model (Pappas & Tepe, 2002, p.2)

Stage	Function
Appreciation	No function statement
Presearch	Establishing my focus
Search	Planning and implementing my search strategy
Interpretation	Assessing usefulness of my information; reflecting to develop my personal meaning
Communication	Constructing and presenting my new knowledge
Evaluation	Thinking about my process and product

As it is seen in the table, there is no statement for appreciation stage because it is not expected to occur at the beginning of the process only. In other words, it must be present throughout the process.

2.1.3.5. The Research Cycle

Unlike the aforementioned models, the Research Cycle model, created by Jamie McKenzie, put great emphasize on the essential questions and subsidiary questions early in the process (McKenzie, 2000). The model, which includes steps called questioning, planning, gathering, sorting and sifting, synthesizing, evaluating and reporting, aims to make students information producers rather than information consumers, which could be made possible by asking questions all the time. In this model, students are required to make up their own minds and find their own answers and display independence and judgment. Since students are always revising and reconsidering their research questions and plans through which they aim to find the relevant information they need during the process, it's obligatory that they repeatedly cycle back through the steps mentioned above.

Questioning: In this step of the Cycle, the essential question that is going to be explored should be clarified and all the related subsidiary questions should be collected with the help of a brainstorming activity. This step is crucial as it will lead the subsequent research efforts.

Planning: Once a student or student team decides on the research plan, their first concern should be to find the best ways to reach relevant and reliable information which will enable them to create answers to the questions they have in their research plan. How the desired information can be achieved, how it can be stored or retrieved are some of the questions to which the student or student team has to find answers.

Gathering: On condition that planning step is successfully completed, gathering information will not cause any problem because the student or student team will know where to find the pertinent and useful information. Benefitting from different types of sources, not only electronic materials but also written materials, is suggested.

Sorting and Sifting: Although most of the information is gathered in the previous step, most of the selecting and sorting takes place in this step. The student or the student team works more systematically to scan and organize the data in order to find the information which will answer their questions best.

2.1.3.6. The PLUS model

The PLUS, an acronym formed from the initials of Purpose, Location, Use and Self-evaluation, is a commonly used information skills model which enables students and teachers to break information skills into four main parts (Herring, 2004).

Table 2.4. The PLUS Model (Herring, 2004)

The PLUS Model		
P	Purpose	Identifying the purpose of an investigation or assignment
L	Locate	Finding relevant information sources related to the purpose
U	Use	Selecting and rejecting information and ideas, reading for information, note-taking and presentation
S	Self-Evaluation	How pupils evaluate their performance in applying information skills to the assignment and what they learn for the future

As in most of the models mentioned before in the study, the PLUS model also starts with identifying the purpose of the study. Unless students or teachers determine the purpose of their study well before they start their research, they may have difficulty in reaching the desired information. In the second step, they should consider in what sources they could get information that they need. In today's world, there are too many information sources that researchers can benefit from; however, deciding on which one to choose is as crucial as the information itself. After enough research is done, the gathered information should be evaluated, and the researchers should decide whether it is related to their purpose or not. In this step, some of the information in hand should be rejected as it is considered irrelevant to the purpose or the gist of the investigation or study. In the last step, researchers should evaluate their performance during research process.

2.1.3.7. The Inquiry model by Alberta

Alberta Model was initially developed in 1985 to teach students how to learn by Alberta Education in Canada. However, because of the changes in curriculum, students, teachers and technology as time went by, the shift of focus from learning to inquiry became inevitable. Hence, in 1990, Alberta Education updated their model as research-based learning. This model is made up of six phases named as planning, retrieving, processing,

creating, sharing and evaluating (Alberta Learning, 2004). Although the phases are the main part of the model, reflecting on the process is as important as the phases themselves.

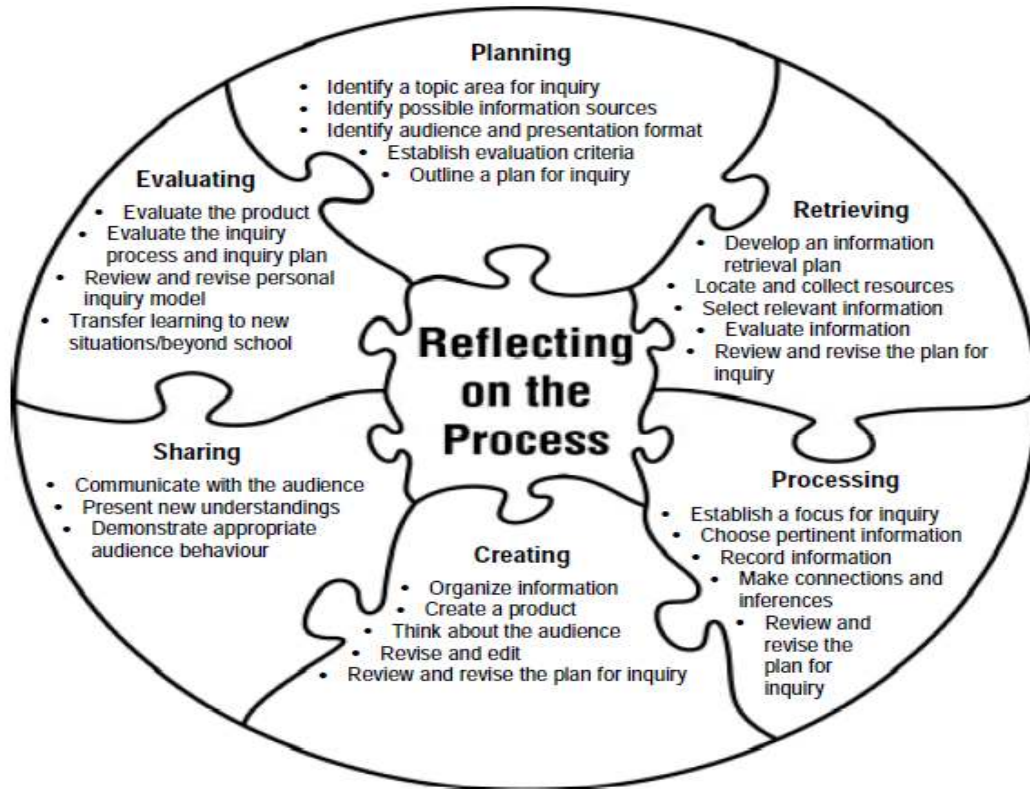


Figure 2.4. The Alberta Model (Alberta Learning, 2004, p. 10.)

As shown in the figure, reflecting on the process is integral to all the phases and researchers should reflect on what they have done during the phase before they move on to the next phase. Planning phase is considered the most important part of the model as the whole process is planned in this phase. Researchers need to determine what questions will be investigated, where to find the relevant information, how to present the information to the audience and their criteria for evaluating their research process and product.

In retrieving phase, on the other hand, researchers need to consider the information that they have gathered thus far and the information that they want. On condition that the information in hand is in line with the information that they intend to find, they may not experience any feelings such as frustration that may cause them to stop searching.

Processing phase begins when researchers decide on their focus of study. “Focus” here refers to identifying the aspect of the topic area that researchers choose to investigate, which means the phase requires coming up with an authentic question or a thesis statement.

In creating phase, researchers organize the information in hand, paraphrase them with their own words and create a presentation format, whereas share phase is the phase where researchers are ready to present their products to an audience.

In evaluating phase, researchers must understand and question the evaluation criteria, identify the steps in their inquiry process, and share how they felt throughout the process.

2.1.3.8. Empowering 8 model

The Empowering 8 model is an information literacy model that was developed at a workshop organized by IFLA-ALP and the National Institute of Library and Information Sciences (NILIS) of Sri Lanka. The participants were from ten different countries in South and Southeast Asia. The components and learning outcomes of the model are as follows:

Table 2.5. Empowering 8 Model (Wijetunge & Alahakoon, 2005, p.37)

Step	Empowering 8 Component	Students will be able to demonstrate an ability to:
1	Identify	- Define the topic / subject - Determine and understand the audience - Choose the relevant format for the finished product - Identify the key words - Plan a search strategy - Identify different types of resources where information can be found
2	Explore	- Locate resources appropriate to the chosen topic - Find information appropriate to the chosen topic - Do interviews, field trips or other outside research
3	Select	- Choose relevant information - Determine which sources are too easy, too hard, or just right - Record relevant information through note making or making a visual organizer such as a chart, graph, or outline etc. - Identify the stages in the process - Collect appropriate citations

4	Organise	- Sort the information - Distinguish between fact, opinion, and fiction - Check for bias in the sources - Sequence the information in a logical order - Use visual organizers to compare or contrast information
5	Create	- Prepare information in their own words in a meaningful way - Revise and edit, alone or with a peer - Finalize the bibliographic format
6	Present	- Practise for presentation activity - Share the information with an appropriate audience - Display the information in an appropriate format to suit the audience - Set up and use equipment properly
7	Assess	- Accept feedback from other students - Self-assess one's performance in response to the teacher's assessment of the work - Reflect on how well they have done - Determine if new skills were learned - Consider what could be done better next time
8	Apply	- Review the feedback and assessment provided - Use the feedback and assessment for the next learning activity/task - Endeavour to use the knowledge gained in a variety of new situations - Determine in what other subjects these skills can now be used - Add product to a portfolio of productions

2.1.4. Characteristics of 21st century EFL teachers

Considering the changes that education and technology have gone through in 21st century, the characteristics of teachers are expected to differ from those of teachers of the

previous century in that their students, who were born into an information era, have different characteristics and ways of learning because of these changes. Therefore, it's not surprising to see the reflections of 21st century skills in education. In this sense, some studies have been conducted to determine what characteristics a 21st century teacher should have. In one of these studies, some of the characteristics of 21st teachers are given as below:

Some of the characteristics of the teachers of the 21st Century are: 1) using inquiry, user design, and constructivism theories (active learning principles); 2) facilitating learning; and 3) effectively and appropriately integrating technology to support learning. (Buenvinida, Rodriguez, & Sapin, 2020, p. 399)

In another study, Nithyanantham, Paulmony, and Hasan (2019) stated that a 21st century educator is supposed to be a better adopter, the best listener, risk taker, better learner, role model, effective communicator and great leader. On the other hand, Greenhill (2010) reported that educators who seek to comply with the requirements of the 21st century skills and teach their students 21st century skills better are able to integrate technology into their instruction and utilise technological devices to meet the needs of their students in a creative way. Also, he stated that they need to have the ability to assess students' performance by using different techniques and use a variety of techniques as much as possible to reach more students as they all learn differently from each other. Lastly, he mentioned that teachers themselves should never cease to learn and need to become a life-long learner.

All the 21st century teachers should have the characteristics mentioned above in order to provide high quality education to their students, yet there are some specific characteristics that EFL teachers should have along with the ones aforementioned. According to the Oxford University Press ELT (2015), in ELT terms, 21st century skills can be interpreted as follows.

- Analysing, synthesizing, and evaluating materials written in English
- Developing a “voice” on a topic and expressing it in English
- Researching materials and solving problems that are presented in English
- Being creative in English and taking communicative risks in pursuit of fluency
- Collaborating in diverse international teams, communicating in English
- Respecting international cultures and sensitivities
- Presenting yourself professionally in English

- Being able to use software to express yourself in English
- Being able to navigate software and digital content that's presented in English
- Having the self-discipline to study English independently, and "learning how to learn".

The aforementioned studies show that teachers of the 21st century skills need to possess different characteristics to effectively and efficiently teach students of 21st century. A few decades ago, teachers didn't use to worry about integration of technology into their classes as much as they do now. It is most probably because students at that time didn't have as much access to technology and technological devices as their contemporary peers. However, in today's world, teaching students with higher technological skills makes it inevitable for teachers to benefit from these sources in their classes. Additionally, thanks to the developments in technology and widespread use of written and online information sources, more information is being presented each day, so teachers always need to be open to learning not only the novelties in their field but also the current trends in the world. In other words, they have to be a lifelong learner.

EFL teachers, on the other hand, are expected to have some more characteristics in addition to the ones that have been mentioned above. As can be seen in the excerpt, they should have some characteristics such researching materials and solving problems that are presented in English. In order to acquire such a skill, EFL teachers should be information literate so that they can know where to look for the needed information. After finding the necessary information, they can evaluate its credibility, reliability and practicality and use it in their lessons if it suits the needs of students or fills a gap in the teaching process. Another characteristic is having the ability to navigate software and digital sources that are presented in English. Information literacy, one of the 21st century skills, plays an important role since teachers are expected to choose the most suitable digital sources among thousands of sources available online platforms.

To sum up, as time goes by, the audience that teachers address has changed a lot, so teachers should consider the changes in their audiences and embrace the technological novelties and integrate them into their classes.

2.1.5. Information literacy and lifelong learning

Technological advancements in the 21st century such as computers, laptops, smartphones and, perhaps the most importantly, world wide web, and also the increase in the number of printed sources have led to information explosion, which essentially means one can find abundance of information on any topic anywhere. In order to deal with so much information available, information literacy skills are the key. Even though only students, academicians and librarians are believed to possess these skills, they are crucial not only throughout the education life but also the life itself because learning is a concept that continues until the end of life.

Speaking of continuity of learning, there comes a term called lifelong learning. In the literature there are several definitions of lifelong learning. One of these definitions (as cited in Candy, 2002) is that lifelong learning is a never-ending process that encourages and empowers people to gain all of the knowledge, values, skills, and understanding they will need during their lives and to apply it with confidence, creativity, and enjoyment in all jobs, situations, and locations. According to ChanLin (2013), on the other hand, it can be simply defined as planned and unplanned learning activities that occur throughout one's life, based on one's own interests and needs. Similarly, Tamilchelvi and Senthilnathan (2013) define it as the provision or utilization of both formal and informal learning opportunities throughout people's lives in order to support the continuous development and improvement of knowledge and skills required for employment and personal fulfilment.

In today's information society, lifelong learning is built on the foundation of information literacy. Information literacy is applicable to all disciplines, all learning environments and to all levels of education (Tamilchelvi & Senthilnathan, 2013) and therefore, people who are unable to keep up with the latest advancements will possibly fall progressively further and further behind, becoming less employable and competitive as a result (Candy, 2013). Hence, separating these two intertwined concepts from one another is not possible because of the interrelations between them. They have a lot in common. To give an example, both of these concepts are mostly self-motivated and self-directed. Neither may necessitate the involvement of an institution, a system or a person apart from the person himself or herself. Since they are intended to help people of all ages regardless of their social or economic status, role or place in society, gender, race, religion and ethnicity, they can also be described as self-empowering. Additionally, as one's level of information literacy

increases, more self-enlightenment occurs, so information literacy and lifelong learning can be characterised as self-actuating (Lau, 2006).

When utilized together, information literacy and lifelong learning may allow one to improve set of personal choices and decisions, quality of education and training, the possibility of finding a decent job and moving forward in their career, and finally participation in social, cultural and political contexts (Lau, 2006).

To summarize, lifelong learning and information literacy are inextricably linked, as evidenced by the findings of Feng and Ha's (2015) study, which discovered significant relationships between lifelong learning and information literacy. These relationships highlight the importance of being information literate and lifelong learner in today's world.

2.1.6. Information literacy and professional development of EFL teachers

The world has been reshaped by the birth of the Information Era and the establishment of a knowledge society. In such a world, it's sine qua non for people to have formal education and the ability to acquire not only theoretical but also analytical knowledge. Moreover, they need to be a lifelong learner.

EFL teachers, who help students broaden their horizon by teaching them another language apart from their mother tongue, have to keep up with the necessities of this new society. In order to adapt to the rapidly changing world, they need to improve themselves not only individually but also professionally so that the quality of instruction they provide at school can be enhanced. Al-Asmari (2016) also emphasizes the importance of professional development by saying that English language teachers must keep up to date on the knowledge and skills required for professional growth, as well as be lifelong learners.

Professional development has been defined in various ways such as:

- It is an inclusion of in-service training and workshops.
- It is a process in which teachers work under supervision to gain experiences.
- It is an ongoing learning process in which teachers primarily aim at how to teach in accordance with the expectations and needs of the students.

(Hismanoğlu, 2010, p. 990.)

As can be understood from the definitions given above, there are several different ways of achieving professional development in one's career; however, in the context of the current study, the definition which describes professional development as an ongoing learning

process is much more meaningful than the others. In the previous section, the relationship between information literacy and lifelong learning has been highlighted, and in this section, it can be understood that with the help of information literacy and lifelong learning abilities, professional development can be achieved.

In the 21st century, the focus of personal development activities for teachers has shifted from teaching to teacher learning (Collinson, et al., 2009). That means teachers will need to take more responsibilities to keep pace with the rapidly changing and developing educational settings, and without information and lifelong learning skills, it may be both difficult and time-consuming. The reason behind the shift is that one-shot or presentation-style workshops are not thought as effective and efficient as they were in the past, and most of the knowledge obtained in these workshops will most probably be forgotten and will not be put into practice when teachers go back to their daily routines (Hunzicker, 2011). In addition, Hunzicker says that teachers benefit from these professional development activities most when they have a voice in the direction and pace of learning, which could be easily ensured on condition that English language teachers take responsibility for their own personal development and know how to find the required information. In other words, they need to be information literate. In another study (Yeşilçınar & Çakır, 2018), that teachers generate their own knowledge rather than passively receiving it from others is deemed as a requirement. It's stated (as cited in Collinson, et al., 2009) that every member, whether individually or as a group, needs advanced continuous learning in addition to opportunities in dialogue and inquiry to create new knowledge. It is also stated that working collaboratively, disseminating their learning and contributing to their own, their colleagues' and the organisation's continuous improvement are needed. As it has been mentioned before, most of the information literacy models include stages similar to those in professional development. Therefore, we can come to the conclusion that information literacy skills are one of the key factors that may influence self-development of English language teachers, who are reported to believe that professional development is an important part of their profession in the Hismanoğlu's study (2010). This finding shows that the majority of EFL teachers are ready to embrace novelties in their profession and willing to make use of any opportunity to improve themselves professionally.

2.2. Related Studies

2.2.1. Related studies in the world

At international level, there are some studies related to information literacy levels of teachers and pre-service teachers and education of information literacy to teachers.

In a study (Carr, 1998), it is stated that unless teachers are information literate, it's impossible for them to teach how to be information literate to their students, which I believe shows how important it is to be an information literate teacher. Carr, also, highlights the importance of information literacy and claims that it must be integrated into teacher education organizations.

In another study, the participants of which are secondary school teachers, (Smith, 2013) it's stated that teachers themselves are unfamiliar with the term information literacy. When they were asked what information literacy means, the answers given were limited to finding the needed information. However, it's known that IL is more than reaching the needed information.

In one of the recent studies focusing on information literacy, Durodolu (2018) investigated whether demographic characteristics of secondary school teachers influence their information literacy levels. The study, carried out in two different cities of Nigeria and South Africa, was built on the questionnaires 368 participants filled in. Having similar research questions with the current research, it indicated that gender, age and work experience are some of the factors that affect the information literacy levels of secondary school teachers. According to the results, female teachers have higher information literacy level; however, the researcher states that the difference between male and female teachers regarding information literacy might have stemmed from the number of female participants because they outnumbered their male counterparts. The research also shows that there is a negative correlation between information literacy levels of secondary school teachers and age, which means younger teachers have higher information literacy compared to older teachers. Finally, work experience, too, has a positive relationship with information literacy. As the number of years spent in teaching increases, the information literacy levels of teachers increase, as well.

Godbey and Dema (2017) conducted a study in order to assess and find out the perception of information literacy skills among teacher education students. It suggested that the students still had a long way to go in terms of information literacy, and not only their

perceptions of information literacy but also their aptitudes for learning and using information literacy skills were low. Notwithstanding these findings, they believe that information literacy plays a key role in teaching.

There are a few studies on information literacy and English language teachers in the world, which shows that it requires further investigations. In one of these rare studies (Yanxia, 2017), it is stated that English language teacher must be information literate because it enables them to integrate various media, technologies and various resources into teaching of English so that a more effective learning environment can be created.

Bamidele and Ibrahim (2019) examined teachers' perception of the impact of English language skills of students on media and information literacy skills. Three research questions were asked in the study so as to find out what teachers thought about English language skills of students on media and information literacy, whether there was a significant relationship between teachers' perception and their gender, and teacher's location. 103 teachers attended the survey. The results demonstrated that when students acquired and utilized English language skills, they would become more media and information literate, so it was concluded that English language skills had an important role in media and information literacy. However, teachers' perceptions of the impact of English language skills of students on media and information literacy skills didn't differ based on gender and teachers' location.

Gu (2020) conducted a study to investigate whether college English language teachers are information literate, and how to enhance information literacy levels of these teachers. 44 college English language teachers participated in the study and its results show that these teachers have limited awareness of information literacy and there is a lot that needs improving. To exemplify the disposition that college English language teachers need to pay attention to more, their application of teaching equipment like computer, the internet or multimedia requires improving in order to provide a high-quality English language instruction to students. The study also suggests that by helping college English teacher have self-development consciousness, making use of group dynamics to promote information literacy, and prioritizing modern educational science and technology, English language teachers could become better in terms of information literacy, and consequently the effectiveness and efficiency of their instruction can increase.

In order to put an emphasis on possible difficulties of reaching information in a language apart from mother tongue, a study was conducted with EFL students whose mother

tongue is Arabic, it was found out that they encountered a lot of language-related challenges as EFL students such as accessing, reading, understanding and translating information in the target language (Johnston, Partridge & Hughes, 2014). Although English language teachers are assumed to be much more competent in using English language, they may suffer from similar or the same challenges as the EFL students did. Therefore, a more elaborate study on information literacy levels of English language teachers is needed.

In another study, Shujing (2015) investigated the information literacy levels of university EFL teachers. The study included 784 English teachers from 23 Chinese universities, and they had different genders, academic degrees and titles. According to the results of the study, information literacy levels of these teachers are at medium level. However, the results show that male teachers are better at the aspect of instrument and implication than their female colleagues although the difference between them is not significant and teachers who had a doctoral degree were better in terms of information literacy. Lastly, it was found out that professors were more information literate than those with lower academic title.

Sun and Xie (2020) conducted a study so as to examine the current information literacy levels of preschool teachers in China and aimed to determine a possible relationship between their information literacy levels and gender, age, years of teaching, educational background and the type of school that they work at. The sample of the study consisted of 215 preschool teachers in Chongqing. The results put forward that male teachers were more information literate than female teachers in some of the dimensions of the scale. Also, as the age of preschool teachers increased, their information literacy level decreased. In other words, the youngest group of the study was found to be more information literate than the rest. Another result that was obtained in the study was that the more experienced preschool teachers were in profession, the less information literacy level they had. One of the most striking results of the study was that educational background had a positive impact on the information literacy levels of these teachers. In other words, preschool teachers with doctoral degree had the highest information literacy level in the study. The final result was that preschool teachers who worked at a public school were more information literate than those working at a private school.

2.2.2. Related studies in Turkey

At national level, on the other hand, there are many studies on information literacy levels of teachers from different subjects. In a study carried out by Kıymacı in 2019, the information literacy levels of teachers who were working at state schools in Ankara were examined and the data revealed that the teachers who knew English were found to have higher information literacy levels compared to those who didn't, which shows that knowing English may be a distinctive feature that may tell English language teachers apart from teachers of other branches in terms of information literacy.

In another study (Atakişi, 2019), information literacy levels of teachers and teacher candidates were examined based on some variables such as age, years of experience and their education level, but the study includes neither any English language teachers in participants nor an item or variable related to knowing a foreign language.

Additionally, Akkoyunlu and Kurbanoglu (2004) investigated the information literacy self-efficacy beliefs of teachers from different subjects including English language teachers who were working at elementary and secondary schools. The results suggest that teachers working secondary schools possess higher information literacy self-efficacy beliefs compared to the ones at elementary schools.

Although a study focusing on information literacy self-efficacy of foreign language teacher candidates, together with their computer literacy, is present in literature, the major of the participants was French language teaching (Korkut & Akkoyunlu, 2008). The mean of information literacy self-efficacy of foreign language teacher candidates was found to be quite high, yet no relationship between the information literacy self-efficacy of these teachers and gender and their grades was detected.

Another study carried out in the department of Physical Education and Sports Teacher Training in Anadolu University (Solmaz, 2017) focused on the relationship between lifelong learning levels and information literacy levels of students from every grade (from freshman to senior), and one of the results puts forward that as the information literacy levels of students increase, their attitudes towards lifelong learning increase, as well.

Information literacy levels of students, pre-service teachers or in-service teachers, together with another topic like lifelong learning levels or information and computer technology skills, have been subject of several studies. In one of those studies, (Sağlam,

Çankaya, Üçer, & Çetin, 2017), the effect of information literacy on critical thinking disposition of teachers was investigated. The study, which is comprised of 626 secondary school teachers from Manisa, a province located in the Aegean region in Turkey, revealed that critical thinking dispositions of teachers conformed to their information literacy levels, that is, as their information literacy levels increase or decrease, their critical thinking disposition increase or decrease, too, which shows that information literacy may behave like a prerequisite for critical thinking disposition.

In a study in which students from English language and literature departments of two universities in Turkey took part (Tosuncuoğlu & Küçükler, 2019), information levels of these students, some of whom are expected to be working as an English language teacher after their graduation, as this is the case in Turkey, were also examined by some variables like gender, university, education type and age. Considering the differences between participants or their features in the previous studies, it can be understood that a study on information levels of English language teachers is particularly needed.

Ekşi (2012) conducted a research in order to determine self-efficacy of foreign language instructors in information literacy and computer literacy after they receive an in-service training on information and communication technologies (ICT). The study included 47 English language instructors and also 75 students from school of language preparation so as to find out whether a difference exists between instructors and students in terms of information literacy and computer literacy. The findings show that information literacy and computer literacy are intertwined, and they strengthen each other. Although there are some studies which show that information literacy levels of teachers are influenced by factors such as age, work experience and gender, the researcher found out in her research that such factors didn't create a difference between instructors from different ages, years of work experience and genders. In addition, when the information literacy and computer literacy levels of students were compared to those of instructors, it was found that instructors didn't fall behind the students, who were assumed to spend more time on technological devices.

Dedebali, Daşdemir and Şan (2019) conducted a study in order to investigate media literacy and information literacy levels of pre-service teachers. 284 students from three different departments, namely preschool teaching, primary school teaching, and social sciences teaching of two universities in Turkey, participated in the study. The researchers used two different scales to determine media and information literacy levels of these

prospective teachers separately. The results indicated that their information literacy levels differed greatly based on the university that they were studying. Participants from Sinop University were found to be more information literate compared to those who studied at Ege University. The grade at which students were studying was taken as a variable, and the results showed that there was an important relationship between grades of the participants and their information literacy levels. Students who were at junior grade were discovered to be more information literate than the students at senior grade. However, there was not a statistically significant relationship between the departments of the participants and their information literacy levels.

Özdemir, Akbaş and Çakır (2009) asserted that there might be a relationship between information literacy levels of pre-service teachers and their attitudes towards distance education. In order to discover such a possible relationship, they carried out a study with 235 pre-service teachers studying at primary school teaching, science teaching and Turkish language teaching in Kırıkkale University. The results showed that these pre-service teachers had quite high information literacy levels with a mean of 3.95; however, no relationship between their information literacy levels and their attitudes towards distance education was found.

Another study on information literacy self efficacy of teacher candidates was carried out by Adalıer and Serin (2012). The sample of study consisted of 142 teacher candidates studying in faculty of education at Cyprus International University. The results demonstrated that mean score of male teacher candidates was higher than that of female teacher candidates, meaning male teacher candidates had more information literacy self efficacy beliefs, although there was no statistically significant relationship between their information literacy self efficacy and their gender. It can be also seen in the results of the study that information literacy self efficacy beliefs increased based on their English proficiency levels and their computer usage experiences.

CHAPTER III

METHODOLOGY

3.1. Methodology of the Study

In this study, by using mixed method, the researcher tried to determine the information literacy levels of EFL teachers. One of the reasons of employing quantitative research method in the study was to include as many participants as possible so that the data which were to be obtained could be more reliable. As stated by Sukamolson (2007), quantitative research is most helpful if the researcher wants to quantify views, attitudes and behaviours, or discover how the population feels about a topic or issue. He also states that by analysing the data collected from the sample group, some conclusions can be drawn about the perceptions of the population. Another reason why quantitative method was utilized in the research was that it allows for statistical comparison between various groups. In this sense, regarding the variables of the study, employing quantitative method was considered logical. Additionally, qualitative research method was preferred in order to obtain a better understanding of what teachers thought of information literacy through open-ended questions as the questionnaire conducted might not have included all the points that participants wanted to mention, which is considered as a weakness of quantitative method (Choy, 2014).

3.2. Participants

Participants were chosen from EFL teachers who were working at state primary, secondary and high schools in Ankara (Appendix 4) because of eligibility and convenience issues. However, due to the COVID-19 pandemic that the world has been struggling with for more than a year and half, the questionnaire was shared online. 200 English language teachers participated in the online survey and 8 English language teachers filled in the questionnaire form in person at their schools, making the total number of participants 208. Out of 208 English language teachers who participated in the study, there are 158 (76%) female participants and 50 (24%) male participants.

The current study, which sought to investigate the information literacy levels of EFL teachers, aimed to discover whether there was a relationship between the information literacy

levels of EFL teachers and 6 different variables. These variables are age, gender, faculty of graduation, education level, level of school and the years of experience in profession.

Table 3.1. Distributions by Age

		n	%
Age	26-35	109	52,4
	36-50	86	41,3
	51+	13	6,3

As can be seen in the table 3.1., the majority of the participants (52,4%) are aged between 26-35 and the percentage of participants whose age range is 36-50 is 41,3. Only 6,3% of the participants stated that they were 51 and older.

Table 3.2. Distributions by Gender

		n	%
Gender	Male	50	24,0
	Female	158	76,0

The table above shows that the percentage of female participants (76%) is much higher than that of male participants (24%).

Table 3.3. Distributions by Faculty of Graduation

		n	%
Faculty of Graduation	Education	146	70,2
	Science and Letters	62	29,8

Most of the English language teachers (70,2%) in the study were a graduate of faculty of education. The percentage of the English language teachers who graduated from science and letters faculty is 29,8.

Table 3.4. Distributions by Education Level

		n	%
Education Level	Bachelor's Degree	177	85,1
	Master's Degree	31	14,9

A great majority of the participants (85,1%) stated that they had bachelor's degree. The number of participants who completed their master's degree is only 31, which is equal to 14,9% of the total participants.

Table 3.5. Distributions by Level of School

		n	%
Level of School	Primary School	41	19,7
	Secondary School	69	33,2
	High School	98	47,1

The participants reported that they were working at a primary, secondary, or high school. Nearly half of the participants (47,1%) were working at a high school. 33,2% of the participants were teaching at a secondary school and the rest (19,7%) were working at a primary school as shown in the table 3.5.

Table 3.6. Distributions by Years of Experience in Profession

		n	%
Years of experience in profession	5 years and less	11	5,3
	6-10 years	79	38,0
	11-15 years	53	25,5
	16-20 years	36	17,3
	21 years and more	29	13,9

According to the table 3.6., the percentage of the participants who had been working as an English language teacher for 5 years or less is 5,3. While 38% of the participants had been teaching English for between 6 and 10 years, 25,5% of the participants had been teaching for between 11 and 15 years. The percentage of who had between 16 and 20 years of experience in profession is 17,3. 13,9% of the participants stated that they had been teaching English for 21 years and more.

For the qualitative data, 20 EFL teachers who took part in interviews answered four open-ended questions and their follow-up questions. 13 of the participants were female and 7 of them were male. Their ages were between 29 and 49 and the mean for age was 37.15. 15 of the participants were graduates of the faculty of education whereas 5 of them were graduates of the faculty of science and letters. Similarly, 15 out of 20 participants stated that they had a bachelor's degree, and only 5 of them had M.A. degree. When the level of the school at which they were working was asked, 5 of them stated they were teaching at a primary school, 5 of them stated that they were working at a secondary school and 10 of the participants stated they were teaching at a high school. Their experience in profession ranges from 6 to 27 years, and the average for years of experience in profession is 14,3.

3.3. Data Collection Instrument

3.3.1. The instrument of quantitative data

In this study, the participants filled in demographic information survey which included 6 questions about age, gender, faculty of graduation, education level, level of school, and years of experience in teaching English.

In the next step, the scale of information literacy (Appendix 2) (Adıgüzel, 2011) was used in order to determine information levels of EFL teachers. The permission to use the scale in the current study was obtained from the owner of the scale through e-mail (Appendix 5). The scale comprises of 29 items, which are categorized as defining information needs, accessing information, utilising information, and ethical and legal regulations in information use although the number of items that each category has varies.

Defining information needs subscale is made up of 8 items and it tried to find out whether participants could define their information needs or not. The participants were expected to evaluate the items by stating how frequently they experience the situation given. The items are given in the table 3.7.

Table 3.7. Items of Defining Information Needs

Items of Defining Information Needs
14- Determining the types and areas of information sources
15- Configuring information requirement by sharing it with others
20- Knowing where to find the information required
21- Knowing the types and the importance of information sources
22- Defining information requirement
23- Knowing the fundamental concepts related to the information required
24- Knowing how information is organised on the basis of its fundamental properties
28- Regularly reviewing the scope and the structure of information requirement

Accessing information subscale consists of 11 items and aimed to discover whether the participants had any problems while trying to access the needed information. The participants were expected to evaluate the items by stating how frequently they experience the situation given. The items are given in the table 3.8.

Table 3.8. Items of Accessing Information

Items of Accessing Information
3- Summarising the basic ideas by examining the information sources obtained.
4- Understanding and evaluating the different perspectives in information sources
5- Taking the evaluation criteria regarding web sources into account
16- Categorising the information obtained on the basis of specific criteria
17- Authentically re-stating the information obtained from the sources by correlating it with the prior information
18- Evaluating information and sources of information on the basis of criteria such as reliability, validity, objectivity and currency
19- Recognising and questioning altered, incorrect and biased information
25- Utilising electronic sources in accessing information
26- Knowing which keywords and relevant terminology to be used and how to use them while using web sources, databases and search engines
27- Utilising current published sources in accessing information
29- Keeping up with the changes in information and communication technologies

Utilising information subscale has 5 items and it aimed to find out whether the participants could effectively and productively utilise the information that they gathered. The participants were expected to evaluate the items by stating how frequently they experience the situation given. The items are given in the table below.

Table 3.9. Items of Utilising Information

Utilising Information
6- Using the information obtained in solving problems by organising it systematically
7- Comparing and integrating prior and new information in order to determine the fundamental properties, importance and discrepancies pertaining to information
8- Properly saving and organising all information excerpts in order to be able to access the sources again when necessary
11- Presenting the results of the information by interpreting the information obtained
13- Determining the relation between the concepts and retrieved results on the basis of the information accessed

Ethical and legal regulations in information use subscale includes 5 items and aimed to discover whether the participants followed ethical and legal procedures in information use. The participants were expected to evaluate the items by stating how frequently they experience the situation given. The items are given in the table below.

Table 3.10. Items of Ethical and Legal Regulations in Information Use

Ethical and Legal Regulations in Information Use
1- Taking the freedom of thought and expression in obtaining information into consideration
2- Accessing and using information legally
9- Completely and correctly indicating the original sources of the information used
10- Taking the personal rights and security issues in printed sources and electronic platforms into account
12- Taking the privacy and security issues regarding the information to be used into account

All of the items were closed-ended statements designed on 5-point Likert scale. The possible answers that participants could give were “always” “usually”, “sometimes”, “rarely” and “never”. The Cronbach alpha coefficient of the scale was determined as .955. The Cronbach Alpha reliability coefficient ranges between 0.00 and 1.00, and values higher than 0.70 are within the acceptable limits. In the last step, 20 of the participants who volunteered to take part in the interviews answered four open-ended questions with follow-up questions about 21st century skills and information literacy.

3.3.2. The instrument of qualitative data

For the qualitative data, the 20 participants were asked questions related to 21st century skills, information literacy, and its possible impacts on English language teaching. The questions asked in the interviews are listed below.

1. Have you ever heard of 21st century skills? If yes, can you name them?
Follow-up questions:
 - 1.1. Do you believe you can integrate 21st century skills into your lessons?
 - 1.2. What do you think their roles are in language education?
2. Have you ever heard of information literacy? If yes, how can you define it?
Follow-up questions:
 - 2.1. Do you think you are an information literate EFL teacher?
 - 2.2. What do you think the benefits of being information literate are while teaching English?
3. How important is information literacy in professional development of an EFL teacher? Why?
Follow-up question:
 - 3.1. Do you think your information literacy level has helped or hindered your professional development so far? Explain briefly.
4. Does information literacy level of an EFL teacher affect the way he or she teaches? Explain.
Follow-up question:
 - 4.1. Could you tell me about a specific situation in which your information literacy level helped you improve the quality of your instruction?

Each of these questions was directed at the participants so as to find out whether they were familiar with 21st century skills, and especially information literacy. Also, determining

whether being an information literate English language teacher can affect their professional developments and the way they teach English was another reason behind the interviews.

3.4. Data Collection Procedure

Before the questionnaire was implemented, the necessary permission was taken from the respective directorate of the Ministry of Education (Appendix 3). When the questionnaire was chosen as the instrument of the study, it was thought that it would be better if the questionnaire handed in English language teachers at their own schools face-to-face. However, the outbreak of Coronavirus pandemic and closure of all the educational institutions until a further notice made it inevitable to collect the data through an online survey. After reopening of the schools in September 2021, some of the schools were visited by the researcher and the questionnaire was conducted face-to-face. The number of questionnaires that were handed back in these visits was only 8, though. The Turkish version of the Information Literacy Scale was given to the participants as it was thought that they could answer the items more easily and eagerly in Turkish. The participants were informed of the purpose of the study, and they were assured that the information given in questionnaires would be kept secret and confidential.

The interviews were conducted in Turkish, mother tongue of the participants, in order to help them express themselves more easily and freely. They were recorded on Zoom and later they were transcribed by the researcher. The answers given in the interviews were categorized in order to make conclusions.

3.5. Data Analysis

The quantitative data were analysed by IBM SPSS 22 package program. Descriptive statistics were used to show the participants' scores. Since the analysis, which were carried out by using Kolmogorov Smirnov and Shapiro-Wilk tests, did not fit the normal distribution, nonparametric tests, namely Kruskal Wallis and Mann Whitney U, were used in statistical comparisons.

In order to analyse the qualitative data, the answers of the interviewees for the first question were categorized based on the Partnership for 21st century skills project (Fadel & Trilling, 2009) and the answers were placed into the relevant category by using the key words. For the second question, categorization was made according to the sub-scale of the instrument used for the quantitative data, and the answers of the participants were placed

into the relevant category by using the key words. The rest was analysed according to the opinions of the interviewees. Whether they agree to the existence of a relationship between the variables was taken into consideration.



CHAPTER IV

RESULTS

4.1. Quantitative Results

The study aimed to investigate the information literacy levels of EFL teachers, and to find out whether the information literacy levels of EFL teachers differ based on the variables, namely age, gender, faculty of graduation, their educational level, level of school and the years of experience in professions.

In the study, Information Literacy Scale (Adıgüzel, 2011) was used to investigate the information literacy levels of EFL teachers. The reliability test of the scale was performed and found 0.955, which shows that the scale had high internal consistency in this study. At the same time, it was observed that the subscales had a high reliability within acceptable limits. The Cronbach Alpha reliability coefficient ranged between 0.00 and 1.00, and values higher than 0.70 are within the acceptable limits.

Table 4.1. Reliability Co-efficient of the Scale

Subscales / Scale	Cronbach's Alpha	Item number
Defining Information Needs	,904	8
Accessing Information	,869	11
Utilising Information	,860	5
Ethical and Legal Regulations in Information Use	,752	5
Information Literacy	,955	29

The scale is composed of four subscales titled as defining information needs, accessing information, utilising information and ethical and legal regulations in information use, as can be seen in the table above.

Defining information needs subscale includes 8 items and these items were intended to find out whether EFL teachers had any difficulty in defining information need or not. The table below shows the mean, standard deviation and median of the related subscale. The participants mostly relate information needs to defining information requirement ($\bar{x}$ =4.50). On the other hand, regularly reviewing the scope and the structure of information requirement are the items that are relatively less favored.

Table 4.2. Scores of Items of Defining Information Needs Subscale

		Mean	Standard Deviation	Median
Defining Information Needs	14. Determining the types and areas of information sources	4,31	0,79	4,00
	15. Configuring information requirement by sharing it with others	4,39	0,75	5,00
	20. Knowing where to find the information required	4,38	0,69	4,00
	21. Knowing the types and the importance of information sources	4,49	0,65	5,00
	22. Defining information requirement	4,50	0,70	5,00
	23. Knowing the fundamental concepts related to the information required	4,41	0,70	5,00
	24. Knowing how information is organised on the basis of its fundamental properties	4,32	0,78	4,00
	28. Regularly reviewing the scope and the structure of information requirement	4,21	0,79	4,00

According to the results given in table 4.2, item 14 suggests that the EFL teachers taking part in the study are mostly able to determine the types and areas of information sources ($\bar{x}=4.31$).

Item 15 demonstrates that the participants of the study have high competency of configuring information requirement by sharing it with others ($\bar{x}=4.39$).

Considering the results of item 20, it can be stated that when the participants need some specific information, they know where to look for the information needed ($\bar{x}=4.38$).

The results of item 21 indicate that EFL teachers know in what source they can find the information that they need and how importance these sources are for their studies ($\bar{x}=4.49$).

Item 22 shows that the participants of the study are aware of whether they need some specific information on their field of study, and the average of item is higher than the rest of

the items in this subscale, which put forwards that teachers believe they are better at defining information need than any other skills required in this subscale ($\bar{x}=4.50$).

When the results of item 23 are taken into consideration, it can be asserted that the EFL teachers who participated in the study believe that they are aware of the basic principles about the information that they need ($\bar{x}=4.41$).

The results of item 24 reveal that the participants of the study are familiar with the basic principles of the needed information and can organise the information accordingly ($\bar{x}=4.32$).

Item 25, the last item of the subscale, indicates that the EFL teachers in the study tend to revise the scope and the structure of information on a regular basis, although the mean of the item is lower than the rest of the items in the subscale ($\bar{x}=4.21$).

Accessing information subscale is composed of 11 items and these items aimed to find out whether EFL teachers had any difficulty in accessing information or not. The table below provides the mean, standard deviation and median of the related subscale. In accessing information subscale, the item that the participants felt the most confident in is knowing which keywords and relevant terminology to be used and how to use them while using web sources, databases and search engines ($\bar{x}=4.63$). The item utilising current published sources in accessing information is less favoured compared to the other items in the subscale by the participants ($\bar{x}=4.17$). As it can be seen in the Appendix 6, the results of the item 3 show that the participants are able to summarize the basic ideas by examining the information sources they have found ($\bar{x}=4.40$).

The results of item 4 suggest that the participants believe that they can understand and evaluate the different perspectives in information sources ($\bar{x}=4.50$).

According to the results of item 5, the EFL teachers in the study have an inclination to consider the evaluation criteria of web sources while searching for the needed information, or evaluate the information obtained from these sources ($\bar{x}=4.28$).

The mean score of item 16 is the proof that the participants can categorise the information that they have been able to find in the sources depending on specific criteria ($\bar{x}=4.28$).

It can be seen in the results of item 17 that the EFL teachers participating in the study can combine their prior information with the latest information they obtain in an original way and paraphrase the information in their own words ($\bar{x}=4.36$).

The results of item 18 indicate that the participants of the study mostly pay attention to how reliable, valid, objective and current the information found and the information sources used are ($\bar{x}=4.41$).

Item 19 shows that the participants are mostly capable of detecting altered, incorrect and biased information in information sources and question such information before they use it ($\bar{x}=4.50$).

The results of item 25 demonstrate that the participants of the study prefer using electronic sources while looking for information to a great extent ($\bar{x}=4.69$).

Throughout online information search process, they know which keywords and terminology they should use in order to access the required information, as stated in the results of item 26 ($\bar{x}=4.63$).

Judging by the results of item 27, it can be stated that the EFL teachers taking part in this study turn to current published sources while searching for information, yet the mean score of this item is not as high as those of the other items in this subscale ($\bar{x}=4.17$).

It is evident in the results of item 28 that the EFL teachers in the study follow the latest trends in terms of information and communication technologies ($\bar{x}=4.39$).

Utilising information subscale comprises 5 items and these items aimed to explore whether EFL teachers had any difficulty in utilising information or not. The table 4.3 provides the mean, standard deviation and median of the related subscale. In the utilising information subscale, the participants believed that they could compare and integrate prior and new information in order to determine the fundamental properties, importance and discrepancies pertaining to information better than the other items ($\bar{x}=4.45$). The result shows that the participants are less able to properly save and organize all information excerpts in order to be able to access the sources again when necessary ($\bar{x}=4.12$).

Table 4.3. Scores of Items of Utilising Information Subscale

		Mean	Standard Deviation	Median
Utilising Information	6. Using the information obtained in solving problems by organising it systematically	4,30	0,72	4,00
	7. Comparing and integrating prior and new information in order to determine the fundamental properties, importance and discrepancies pertaining to information	4,45	0,72	5,00
	8. Properly saving and organising all information excerpts in order to be able to access the sources again when necessary	4,12	0,93	4,00
	11. Presenting the results of the information by interpreting the information obtained	4,44	0,74	5,00
	13. Determining the relation between the concepts and retrieved results on the basis of the information accessed	4,39	0,74	5,00

According to the results of item 6, the EFL teachers participating in the study can use the information that they have accessed so as to solve the existing problems by organising it in a systematical way ($\bar{x}=4.30$).

The results of item 7 show that the participants can determine the fundamental properties, importance and discrepancies related to information by comparing and integrating prior and new information ($\bar{x}=4.45$).

As can be seen in the results of item 8, the EFL teachers who took part in the study have a tendency to save and organise all information excerpts that they have gathered properly so that they can turn back to them if necessary. However, the mean score of item 8 is the lowest one in the utilising information subscale ($\bar{x}=4.12$).

The results of the item 11 demonstrate that the participants are able to present the results of information after they interpret the information obtained ($\bar{x}=4.44$).

It can be seen in the results of item 13 that the participants can make a connection between the concepts and retrieved results depending on the information accessed ($\bar{x}=4.39$).

Ethical and legal regulations in information use subscale includes 5 items and these items aimed to determine whether EFL teachers abode by ethical and legal regulations in information use.

Table 4.4. Scores of Items of Ethical and Legal Regulations in Information Use Subscale

		Mean	Standard Deviation	Median
Ethical and Legal Regulations in Information Use	1. Taking the freedom of thought and expression in obtaining information into consideration	4,61	0,62	5,00
	2. Accessing and using information legally	4,44	0,75	5,00
	9. Completely and correctly indicating the original sources of the information used	4,27	0,86	4,00
	10. Taking the personal rights and security issues in printed sources and electronic platforms into account	4,42	0,81	5,00
	12. Taking the privacy and security issues regarding the information to be used into account	4,55	0,70	5,00

According to the results of item 1, the participants of the study value freedom of thought and expression during information research process to a great extent ($\bar{x}=4.61$).

The second item in this subscale shows that the EFL teachers who took part in this study mostly used legal ways to access and utilise information ($\bar{x}=4.44$).

The participants are found to indicate the original sources of the information that they use completely and correctly, meaning they follow ethical regulations ($\bar{x}=4.27$), as shown in the results of item 9.

The results of item 10 demonstrate that the participants of the study consider personal rights and security issues not only in printed sources but also on electronic platforms during information research process ($\bar{x}=4.42$).

Judging by the results of item 12, it can be stated that the EFL teachers participating in this study take privacy and security issues about the information that they plan to use into account ($\bar{x}=4.55$).

Age, gender, faculty of graduation, education level, level of school and years of experience were hypothesised to be linked with information literacy levels of EFL teachers.

4.1.1. The relationship between information literacy and age

In order to discover whether there was a relationship between information literacy levels of EFL teachers and the age variable, normality test was carried out and it was found that information literacy levels of English language teachers based on their ages didn't fit normal distribution. Therefore, while comparing the scores of subscales/scale based on age, nonparametric tests were employed. Whether there was a significant relationship between English language teachers and their ages was tested by using Kruskal Wallis test and the results were shown in the table 4.5.

Table 4.5. Information Literacy Levels of EFL Teachers and Age

	Age	n	Mean	SD		p
Defining Information Needs	26-35	109	4,42	0,55	3,619	,164
	36-50	86	4,30	0,58		
	51+	13	4,53	0,60		
Accessing Information	26-35	109	4,49	0,45	5,340	,069
	36-50	86	4,31	0,55		
	51+	13	4,53	0,44		
Utilising Information	26-35	109	4,40	0,54	2,312	,315
	36-50	86	4,27	0,67		
	51+	13	4,53	0,51		
Ethical and Legal Regulations in Information Use	26-35	109	4,48	0,53	,934	,627
	36-50	86	4,42	0,60		
	51+	13	4,60	0,48		
Information Literacy	26-35	109	4,45	0,46	3,681	,159
	36-50	86	4,31	0,55		
	51+	13	4,54	0,49		

Based on the age of EFL teachers, there is no significant difference between the scores of defining information needs, accessing information, utilising information, and ethical and

legal regulations in information use subscales ($p > 0.05$). Additionally, there is no significant difference between information literacy levels of EFL teachers and their ages ($p > 0.05$).

In defining information needs subscale, the mean scores show that the teachers who are over 51 years old are more competent in determining information needs ($\bar{x}=4.53$) followed by those who are between 26-35 years old ($\bar{x}=4.42$).

The statistics in accessing information subscale suggest that the oldest group (51+) is of the opinion that they have less trouble finding the information that they need ($\bar{x}=4.53$) compared to the other two group, although the difference between the oldest and the youngest group is slight ($\bar{x}=4.49$).

That the oldest group has the highest mean score ($\bar{x}=4.53$) in the utilisation of the information that they have gathered indicates that the older EFL teachers are, the better they are at using information compared with the other groups formed based on age.

In ethical and legal regulations in information use subscale, the members of the oldest group have been found to abide by ethical and legal regulations in information use more than the other two groups ($\bar{x}=4.60$).

All in all, in information literacy scale, the oldest age group has the highest mean score ($\bar{x}=4.54$) followed by the youngest group ($\bar{x}=4.45$). The EFL teachers who are 36-50 years old have the lowest mean score ($\bar{x}=4.31$).

4.1.2. The relationship between information literacy and gender

The next variable of the study was gender, which was presumed to be affecting the information literacy levels of EFL teachers. In order to see the distribution of the information literacy levels of EFL teachers based on their gender, a normality test was conducted. The results indicated that the assumption of the homogenous variation was violated for the gender variable ($p > 0.05$). Therefore, Mann Whitney U test, a nonparametric test, was used to see the differences in the age groups.

Table 4.6. Information Literacy Levels of EFL Teachers and Gender

	Gender	n	Mean	SD		p
Defining Information Needs	Male	50	4,29	0,64	3478,500	,201
	Female	158	4,41	0,54		
Accessing Information	Male	50	4,29	0,60	3227,500	,051
	Female	158	4,46	0,46		
Utilising Information	Male	50	4,18	0,75	3261,000	,061
	Female	158	4,41	0,53		
Ethical and Legal Regulations in Information Use	Male	50	4,24	0,73	2961,000	,006*
	Female	158	4,54	0,47		
Information Literacy	Male	50	4,26	0,63	3235,500	,054
	Female	158	4,45	0,45		

* $p < 0.05$

There is no significant difference between the scores of defining information needs, accessing information, utilising information, and ethical and legal regulations in information use subscales ($p > 0.05$) in terms of the gender of EFL teachers. However, a significant difference between the scores of ethical and legal regulations in information use subscale based on the gender of EFL teachers was found ($p < 0.05$).

When the answers of the participants were analysed based on their genders, it was discovered that in defining information needs subscale, female EFL teachers have higher mean score ($\bar{x}=4.41$) than male EFL teachers do ($\bar{x}=4.29$), meaning that female EFL teachers are more capable of defining their information needs when compared to their male colleagues.

In utilising information subscale, the mean score of female EFL teachers ($\bar{x}=4.46$) demonstrate that they are more skilled in accessing information than male EFL teachers are ($\bar{x}=4.29$).

The results of utilising information subscale demonstrate that female EFL teachers ($\bar{x}=4.41$) can use the information they reach better than male EFL teachers ($\bar{x}=4.18$).

The mean score of female EFL teachers in ethical and legal regulations in information use ($\bar{x}=4.54$) indicates that they pay attention to ethical and legal procedures more than male EFL teachers ($\bar{x}=4.24$).

The overall mean scores in information literacy scale puts forward that female EFL teachers ($\bar{x}=4.45$) are more information literate compared to male teachers ($\bar{x}=4.26$).

4.1.3. The relationship between information literacy and faculty of graduation

Another variable of the study was the faculty that EFL teachers graduated from. In Turkey, when you graduate from faculty of education, you can start working as an EFL teacher at state and private schools. Also, graduates of faculty of science and letters can work as an EFL teachers after completing a program in which they take pedagogical classes in education. The assumption that the difference may have affected the information literacy levels made it inevitable to test the relationship between the information literacy levels of EFL teachers and faculty of graduation.

A normality test was used to see the distribution of information literacy levels of EFL teachers based on faculty of graduation, and it was found that it didn't fit normal distribution. Therefore, while comparing the scores of subscales/scale based on faculty of graduation, nonparametric tests were employed. Whether there was significant relationship between EFL teachers and faculty of graduation was tested by using Mann Whitney U test and the results were given in the table 4.7.

Table 4.7. Information Literacy Levels of EFL Teachers and Faculty of Graduation

	Faculty of Graduation	n	Mean	SD		p
Defining Information Needs	Faculty of Education	146	4,37	0,58	4389,500	,729
	Faculty of Science and Letters	62	4,40	0,55		
Accessing Information	Faculty of Education	146	4,40	0,53	4285,000	,543
	Faculty of Science and Letters	62	4,47	0,43		
Utilising Information	Faculty of Education	146	4,34	0,62	4371,000	,694
	Faculty of Science and Letters	62	4,38	0,56		
Ethical and Legal Regulations in Information Use	Faculty of Education	146	4,45	0,55	4192,500	,391
	Faculty of Science and Letters	62	4,49	0,57		
Information Literacy	Faculty of Education	146	4,39	0,52	4325,000	,612
	Faculty of Science and Letters	62	4,43	0,46		

Based on faculty of graduation, no significant difference was found between the scores of defining information needs, accessing information, utilising information, and ethical and legal regulations in information use subscales ($p > 0.05$). Additionally, there is no significant difference between information literacy levels of English language teachers and faculty of graduation ($p > 0.05$).

The mean scores of faculty of graduation in defining information needs subscale show that EFL teachers who graduated from faculty of science and letters ($\bar{x}=4.40$) are slightly better at determining their information needs than those who graduated from faculty of education ($\bar{x}=4.37$).

As in defining information subscale, the graduates of faculty of science and letters ($\bar{x}=4.47$) outperform the EFL teachers who graduated from faculty of education ($\bar{x}=4.40$) in Accessing Information subscale, as well.

It can be understood from the statistics in utilising information subscale that EFL teachers who are a graduate of science and letter faculty ($\bar{x}=4.38$) can use the information relatively better than those who graduated from faculty of education ($\bar{x}=4.34$).

In ethical and legal regulations in information use, EFL teachers who graduated from faculty of science and letters ($\bar{x}=4.49$) have been found to consider ethical and legal regulations while using the information they collect more than the ones who graduated from faculty of education ($\bar{x}=4.45$).

In general, when all the mean scores in all of the subscales are taken into consideration, it can be concluded that EFL teachers who graduated from faculty of science and letters ($\bar{x}=4.43$) are more information literate than those who graduated from faculty of education ($\bar{x}=4.39$).

4.1.4. The relationship between information literacy and education level

The next variable of the study was educational level. The normality test, which was employed to see the distribution of information literacy levels of English language teachers based on their educational level, showed that it didn't fit normal distribution. Therefore, while comparing the scores of subscales/scale based on their educational level, nonparametric tests were employed. Whether there was a significant relationship between English language teachers and their educational level was tested by using Mann Whitney U test and the results were shown in the table 4.8.

Table 4.8. Information Literacy Levels of EFL Teachers and Education Level

	Education Level	n	Mean	SD		p
Defining Information Needs	Bachelor's Degree	177	4,37	0,58	2727,000	,957
	Master's Degree	31	4,41	0,48		
Accessing Information	Bachelor's Degree	177	4,41	0,51	2638,000	,732
	Master's Degree	31	4,47	0,41		
Utilising Information	Bachelor's Degree	177	4,34	0,60	2473,500	,379
	Master's Degree	31	4,42	0,58		
Ethical and Legal Regulations in Information Use	Bachelor's Degree	177	4,46	0,55	2452,500	,336
	Master's Degree	31	4,50	0,62		
Information Literacy	Bachelor's Degree	177	4,39	0,51	2601,500	,646
	Master's Degree	31	4,45	0,45		

Based on the education level of English language teachers, there is no significant difference between the scores of defining information needs, accessing information, utilising information, and ethical and legal regulations in information use subscales ($p > 0.05$). In addition, there is no significant difference between information literacy levels of English language teachers and their education level ($p > 0.05$).

When the mean scores of defining information needs subscale are analysed, it can be inferred that EFL teachers who had master's degree ($\bar{x}=4.41$) are more capable of defining their information needs than those with bachelor's degree ($\bar{x}=4.37$).

In accessing information subscale, EFL teachers with master's degree ($\bar{x}=4.47$) have been determined as more skilled in terms of accessing information compared to those with bachelor's degree ($\bar{x}=4.41$).

Although there is not much difference between the mean scores of EFL teachers with master's degree or bachelor's degree in utilising information subscale, the results indicate that the ones with master's degree ($\bar{x}=4.42$) are better at utilising information than those with bachelor's degree ($\bar{x}=4.34$).

According to the statistics in ethical and legal regulations subscale, ethical and legal procedures matter more to EFL teachers with master's degree ($\bar{x}=4.50$) than the ones with bachelor's degree ($\bar{x}=4.46$).

When the mean scores of information literacy scale are considered, it can be concluded that EFL teachers with master's degree ($\bar{x}=4.45$) are more information literate than those with bachelor's degree ($\bar{x}=4.39$).

4.1.5. The relationship between information literacy and level of school

The next variable is level of school that EFL teachers work at. A normality test was conducted to see the information literacy levels of EFL teachers based on level of school, and the results showed that it didn't fit normal distribution. Therefore, while comparing the scores of subscales/scale based on the level of the school they work at, nonparametric tests were employed. Whether there is a significant relationship between English language teachers and level of school was tested by using Kruskal Wallis test and the results were shown in the Appendix 7. Considering the level of the school that EFL teachers work at, there is no significant difference between the scores of defining information needs, accessing information, utilising information, and ethical and legal regulations in information use subscales ($p > 0.05$). Additionally, there is no significant difference between information literacy levels of EFL teachers and the level of the school they work at ($p > 0.05$).

When the mean scores of the subscales are examined, it can be seen that in defining information needs subscale, EFL teachers who work at a secondary school ($\bar{x}=4.43$) are more information literate than EFL teachers working at a high school ($\bar{x}=4.40$), although the difference between mean scores is slight.

In accessing information subscale, contrary to the case given in the previous paragraph, EFL teachers working at a high school ($\bar{x}=4.46$) are seen as more information literate than those who work at a secondary school ($\bar{x}=4.44$). Still, the difference between the mean scores is not broad.

Regarding the mean scores given in utilising information subscale, it can be seen that EFL teachers who work at a high school ($\bar{x}=4.39$) are more information literate than not only EFL teachers working at a secondary school ($\bar{x}=4.37$) but also those who work at a primary school ($\bar{x}=4.24$).

According to the information presented in the table related to ethical and legal regulations in information use, high school EFL teachers ($\bar{x}=4.53$) pay more attention to

ethics and legal regulations in the process of information literacy than primary ($\bar{x}=4.49$) and secondary school EFL teachers ($\bar{x}=4.37$).

In general, high school EFL teachers ($\bar{x}=4.44$) are more information literate than secondary school EFL teachers ($\bar{x}=4.41$) and primary school EFL teachers ($\bar{x}=4.29$). In other words, as the level of the school they teach increases, their information literacy level increases, as well.

4.1.6. The relationship between information literacy and years of experience in the profession

In order to see the distribution of information literacy levels of EFL teachers based on their years of experience in the profession, a normality test was carried out and it was found that information literacy levels of English language teachers based on their years of experience in the profession didn't fit normal distribution. Therefore, while comparing the scores of subscales/scale based on age, nonparametric tests were employed. Whether there was a significant relationship between English language teachers and their years of experience in profession was tested by using Kruskal Wallis test and the results were shown in the Appendix 8.

Based on the years of experience of EFL teachers in the profession, no significant difference was found between the scores of defining information needs, accessing information, utilising information, and ethical and legal regulations in information use subscales ($p > 0.05$). Additionally, the Appendix 8 shows that there was no significant difference between information literacy levels of English language teachers and their years of experience in the profession ($p > 0.05$).

Although there was no statistically significant relationship between information literacy levels of EFL teachers and their years of experience, when the mean scores of the participants of different age groups are analyzed, it can be seen that EFL teachers with the least work experience have the highest information literacy level in all subscales except for ethical and legal regulations in information use subscale, where EFL teachers with the highest work experience have the highest information literacy level ($\bar{x}=4.51$).

All in all, it can be seen that teachers with the least work experience have the highest information literacy level ($\bar{x}=4.49$).

4.2. Qualitative Results

In this study, alongside with a questionnaire which enabled investigating the information literacy levels of EFL teachers quantitatively, interviews were carried out in

order to determine what teachers' opinions are about information literacy and its possible impacts qualitatively. The questions that were asked in the interviews are as follows:

1. Have you ever heard of 21st century skills? If yes, can you name them?
 - 1.1. Do you believe you can integrate 21st century skills into your lessons?
 - 1.2. What are their roles in language education?
2. Have you ever heard of information literacy? If yes, how can you define it?
 - 2.1. Do you think you are an information literate EFL teacher?
 - 2.2. What do you think the benefits of being information literate are while teaching English?
3. How important is information literacy in professional development of an English Language teacher? Why?
 - 3.1. Do you think your information literacy level has helped or hindered your professional development so far? Explain briefly.
4. Does information literacy level of an English language teacher affect the way she or he teaches English? Explain.
 - 4.1. Could you tell me about a specific situation in which your information literacy level helped you improve the quality of your instruction?

4.2.1. Familiarity of EFL teachers with 21st century skills

In order to determine whether the interviewees heard the term 21st century skills or not before, the following question was asked.

“Have you ever heard of 21st century skills? If yes, can you name them?”

As can be seen in the table (Appendix 9), 15 out of 20 participants stated that they had heard of the 21st century skills before and only five of the participants were unfamiliar with the 21st century skills. Although the number of 21st century skills mentioned during the interviews is limited, the most known skill, which was mentioned by 12 of the participants, was information and communication technology (ICT). The second most frequently mentioned skill was creativity, which was stated by the 3 of the interviewees. Also, problem-solving skills and communication skills were mentioned twice by the participants. The other skills that were known by the participants and mentioned only once were critical thinking, decision-making, collaboration, media literacy, information literacy, innovative and adaptability. The skills mentioned during the interviews were sorted out based on categorization of the Partnership for 21st century skills project (2009): core subjects and 21st

century themes, life and career skills, learning and innovation skills and information, media and technology skills.

The 21st century skills that were mentioned by the participants who stated that they heard a term called 21st century skills before are given below. The answers were divided into two categories called learning and innovation skills, and information, media and technology skills. The answers of the participants who mentioned skills related to information, media and technology skills are listed below.

“These skills are generally related to the use of technology” (Hülya)

“I guess I heard. I think they are Web 2.0 tools. Digital literacy is one of 21st century skills.” (Melis)

“As far as I know, the skills that can be used on digital platforms.” (Gülşen)

“Yes, I have, but I can’t name them. I guess they may be related to computer and technology use.” (Fatih)

“Yes, I have. Aren’t they related to informatics? They reminded me of computer programs and teaching of English through these programs.” (Semiha)

“Yes, I have. I guess these skills are related to technology use.” (Neslihan)

“Yes, I have. I guess they are about technology use and human relations.” (Melisa)

“Yes, I have. 21st century skills remind me of technology-based lessons because teachers are expected to integrate technology into their lessons. In other words, I think they are about technology use.” (Kardelen)

“21st century skills remind me of digital skills, that is, they are the skills that help one use technology efficiently.” (Meryem)

“Yes, I have. In fact, there are several skills which are called as 21st century skills, yet I can’t remember all of them right now. The ones that I remember are information and communication technology skills, media literacy, information literacy, and creativity.” (Metin)

“Yes, I have. As far as I know, skills related to effective use of technology and communication are some of 21st century skills.” (Doğukan)

Of all the 20 participants, 11 of them mentioned skills that belong to information, media and technology skills category. The skills mentioned are information and communication technology skills, media literacy, and information literacy.

The answers of the participants who mentioned skills that belong to learning and innovation skills category are given below.

“Creativity and entrepreneurship are two of the 21st century skills as far as I can remember.” (Tarık)

“I had a seminar on 21st century skills in Ankara. Analytical thinking is the first skill that comes to my mind.” (Hakan)

“Yes, I have. Creativity is the first skill that comes to my mind.” (Berrin)

“Yes, I have. The first ones that come to my mind are creativity, problem-solving, critical thinking, decision making, collaboration, communication.” (Sena)

“Yes, I have. In fact, there are several skills which are called as 21st century skills, yet I can’t remember all of them right now. The ones that I remember are information and communication technology skills, media literacy, information literacy, and creativity. (Metin)

5 out of 20 interviewees mentioned skills of learning and innovation skills category. The skills mentioned are creativity, problem-solving, decision making, collaboration and communication, critical thinking. The skill which was mentioned three times by the participants is creativity. The rest were mentioned only once by the participants.

The first follow-up question of the first interview question was:

“Do you believe that you can integrate 21st century skills into your lessons?”

After giving some brief information about what 21st century skills are and how they are categorized based on Partnership for 21st century skills project, the participants were asked whether they could integrate these skills into their lessons.

Interviewees, who were informed of 21st century skills before this question was asked, said that 21st century skills such as learning to learn, information and communication technology skills, critical thinking, problem-solving, creativity, innovation, leadership, communication, collaboration, social and intercultural skills were the skills that they could successfully integrate into their lessons.

The answers of the participants who thought they couldn’t integrate these skills into their lessons are given below.

“Because of the heavy burden that the curriculum places on us, the time that we can allocate to helping students gain these skills is limited. Also, to what extent our books are prepared according to these skills is debatable. Together with this, overcrowded classes make it nearly impossible to practice these skills during our lessons. As a consequence, I don’t believe I can integrate these skills into my lessons.” (Hülya)

“I don’t think I can integrate 21st century skills into my lessons because I am currently teaching 8th graders and unfortunately my lessons are totally exam-oriented. They always answer multiple choice questions at home and even at breaks. Also, the school management wants us to prepare these students in such a way that they can be successful in the exam that will be carried out at the end of the year.” (Fatih)

“No, I don’t think so because we still pay more attention to grammar teaching than four skills and while teaching grammar, it’s not really possible to activate these skills in lessons and as a consequence, our students cannot acquire the desired proficiency level in English. Additionally, our students are preparing for LGS exam to enter a high school of high quality, so they don’t want to take part in activities that require these skills. The only thing that they want to do is to answer multiple choice questions.” (Doğukan)

“I don’t think I can integrate them into my lessons because of the inconvenience of the classroom and restrictions that the curriculum causes.” (Berrin)

“No, I don’t because of the curriculum and the books which are not designed for teaching these skills.” (Sena)

“I don’t think we can integrate them into our lessons. One of the reasons is the curriculum that we have to follow and the books which are not suitable for teaching these skills.” (Belgin)

The rest 6 EFL teachers said they couldn’t include these skills in their lessons owing to some reasons such as curriculum, overcrowded classes, exam-oriented lessons, limited weekly lesson hour, unsuitable physical conditions of classroom, overfocus on grammar teaching and coursebook which are unsuitable for 21st century skills.

The answers of participants who believed that they could totally or partly integrate these skills into their lessons are given below.

“I believe that I can encourage my students to learn to learn. Sometimes, I use some applications or websites in my classes for some of the activities for which they need to use their information and communication technology skills. In pair work and group work activities, students are expected to use their communication and collaboration skills. These activities may also require problem-solving skills. In some writing activities, I expect my students to be creative. Finally, for performance work, I want my students to be innovative and award them with extra points if their works are unique.” (Tarık)

“Yes, I do although sometimes it may not possible because of the book we teach. Especially information and communication technology skills.” (Derya)

“I find a video and plan my lesson on it. Before we watch it, we talk about it for a while, which enhances my students’ critical thinking or problem-solving skills.” (Hakan)

“As one of the writers of the books that are distributed to the public schools in Turkey, I strongly believe that I can integrate them into my lessons because the books include activities that are suitable for helping students gain these 21st century skills.” (Melis)

“I partially integrate them into my lessons. The reason behind is that I don’t have many hours to teach English and the curriculum creates pressure on me. However, I try to integrate information and communication technology skills into my lessons.” (Gülşen)

“Yes, I do. Through pair works and group works, students can improve their communication, collaboration and problem-solving skills. Also, their assignments can help them improve their digital literacy skills like information literacy or information and communication technology skills.” (Semiha)

“Even if it’s partial, I believe I can integrate critical thinking and problem solving and information and communication technology skills into my lessons.” (Neslihan)

“Of course. Especially I try to integrate information and communication technology skills into my lessons.” (Melisa)

“I mostly try to do so. Fatih Project of the Ministry of National Education aims to realize this purpose. However, because weekly lesson hour is limited, how effectively we can use it is a matter of debate.” (Kardelen)

“I think we can integrate creativity, innovation, critical thinking and problem-solving skills into our lessons. Additionally, thanks to the smartboards that we have in our classrooms, we can add information and communication technology skills. We have a curriculum that we need to follow, and our weekly lesson hour is limited, but in a reading activity we can encourage students to use their critical thinking skills by providing a specific situation.” (Meryem)

“Yes, I partially do. Especially, information and communication technology skills.” (Ayşe)

“Yes, I do. Especially, information and communication technology skills. However, it’s difficult to integrate critical thinking or problem-solving skills into our lessons as we have to finish the book, for which students will be responsible in high stake exams. That’s why, trying to integrate these skills may be a waste of time.” (Furkan)

“I believe we can integrate some of them to some extent. It’s mostly because we carry out our lessons in a curriculum-based way. To give some examples, we can integrate leadership, communication and collaboration skills into our lessons by preparing group activities. Also, by providing contexts from a different culture, we can improve their social and intercultural interaction skills.” (Cem)

“As we are teaching a book prepared by the ministry of national education, it’s not always possible to integrate them into my lessons, yet I try to do my best because I know their significance in the 21st century.” (Metin)

Of all the 20 participants, 6 EFL teachers stated that they could integrate these skills into their lessons. However, 8 of them more cautiously said that they could partly activate these skills in their lessons, yet not all of them. Curriculum, coursebook, and weekly lesson hour are also the reasons why 8 EFL teachers could partly integrate these skills into their lessons.

The second follow-up question of the first interview question was:

“What are their roles in language education?”

The interviewees were also asked what roles they thought 21st century skills play throughout language education process. A great majority of them said that they were quite important for teaching a language. Their answers related to the roles of 21st century skills were given below.

“These are the basic skills that one should have, but these skills help us teach English better and students learn English better.” (Tarık)

As can be seen in the excerpt, 21st century skills are believed to lead to better teaching and learning outcomes.

“These skills are a must in language education, and 21st century skills and language education affect each other mutually. If students have confidence and communicate with others in the target language, they can easily learn. As they learn the language, they gain more confidence and have more willingness to communicate with people, even with those whom they hardly know. Additionally, when they know a language, they can easily adapt to an environment where the language they know is spoken.” (Hülya)

According to the statements by Hülya, 21st century skills and language education have a close relationship and they both affect each other. To illustrate, while having communication skills increases the possibility of learning a language, knowing a language enables people to adapt to the environment more easily, that is, it enhances adaptability skills of people.

Some of the participants said that the skills under the title of digital literacy, namely, media literacy or information and communication technology skills, were important in language education. Here are their answers:

“Digital literacy skills, namely information literacy, media literacy and information and communication technology skills, are important for an English language teacher because we are not a native speaker, so we depend on the information that we can find on the internet in terms of language teaching.” (Derya)

“They are really important. In the past, students would memorize the words from the lists given by teachers, but now there are too many applications by which students can learn and internalize words. In order to find these tools, one needs to be information literate or have information and communication technology skills.” (Hakan)

“21st century skills are important for language education. There is a term called global citizenship, which includes volunteer experiences, international internship, gap years or international learning or working. That’s why people need to learn English. In order to reach an adequate level of proficiency, they can study online and follow the procedures online, which requires digital literacy skills.” (Gülşen)

“Digital literacy skills are highly important. In today’s world, one can learn a language without taking any formal education thanks to the videos on the internet.” (Fatih)

“Through information and communication technology skills, one can be engaged in language learning process better and consequently learn better.” (Neslihan)

“They need media literacy in order to access the videos broadcast on TRT EBA and EBA.gov.tr. Without information and communication technology skills, it would be much more difficult to learn a language. Therefore, I strongly believe that students should have this skill.” (Melisa)

“If students have information and communication technology skills, they can basically learn a few words in English by playing online games or watching videos on the internet.” (Kardelen)

“They are all very important. Especially information and communication technology skills are crucial. Students don’t have the opportunity to practice English in their daily life, so the internet is the only platform on which they can be exposed to English and practice it.” (Meryem)

“Information and communication technology skills have the biggest role in language education because students can access a variety of contents and practice as much as they desire.” (Berrin)

“Not only social skills like collaboration but also information and communication skills play an important role in language education.” (Ayşe)

“Information and communication technology skills are the most important ones because they enable students to prepare better homework.” (Furkan)

“Also, information and communication technology skills are crucial in language education. The effects of web 2.0 tools on students’ language performances and achievements are undeniable.” (Metin)

As can be seen in the excerpts given above, participants regarded information and communication technology skills and media literacy as a key factor in language education.

There are some other skills whose importance participants highlighted. These skills are given in the following excerpts.

“It is impossible to teach language without 21st century skills. For example, social and intercultural interaction. In the first step of language teaching, we teach them different families across the world in order to teach countries and nationalities.” (Melis)

It can be understood from the excerpt above that social and intercultural interaction can be maintained through language education.

“Additionally, collaboration and communication skills play an important role in language education because in our lessons there are many activities that students need to interact with each other. If these skills lack in students, they may not fulfil the task they are given properly.” (Fatih)

“As they may foster the communication between students in the target language, they should be important, but only if you have students who are willing to learn and speak in English.” (Doğukan)

“They are extremely important because learning a language requires being active, communicating with people or creating something new by using the target language. If they were not integrated into lessons, language education would be most boring and less effective.” (Semiha)

“In language education, communication plays an important role, so students need to have this skill so that they can learn the language better.” (Melisa)

“In a group work or pair work, if students can’t cooperate, they can not acquire the outcome of that activity, which makes 21st century skills an important element in language education.” (Sena)

“Communication and cooperation skills are the most important skills that should be possessed by a language learner because in our lessons, we try to use communicative approach as much as possible.” (Metin)

The excerpts indicate that teachers believe that communication, cooperation and collaboration skills play an important role in language education by helping students learn the language more easily and better. Moreover, some of the interviewees regard these skills as the most important 21st century skills that should be possessed by a language learner.

“In higher levels, some of them, for example creativity, can be applied or used for teaching or learning a language.” (Sena)

Creativity is also thought to be one of the 21st century skills that may foster language education.

“By using critical thinking, English language learner can express themselves better in the target language, which makes it essential in English language learning process.” (Neslihan)

According to the statement made by Neslihan, people with critical thinking ability are able to convey their messages in the target language better, and therefore it’s an indispensable part of language education.

4.2.2. Familiarity of EFL teachers with information literacy and its definition

The second research question of the interview was:

“Have you ever heard of Information Literacy? If yes, how can you define it?”

The results and how EFL teachers defined it are given in Appendix 10.

Of the 20 EFL teachers who took part in the interviews, 15 participants stated that they had heard of the term information literacy before, whereas 5 participants stated that they had never heard of the term information literacy. When asked how you could define information literacy, those who hadn’t heard of it before said they couldn’t define it. Those who had heard the term before defined it in different ways and stressed that it was about access to information, use of information and evaluation of information. However, no one was able to

make a full definition which covers three categories. In this part, categorization was made inspired by the subscales of the questionnaire through which quantitative data was collected. The categories are access to information, evaluation of information, use of information.

The opinions of the participants about the definition of information literacy are listed below.

“Information literacy is to be able to access the needed information.” (Derya)

“Information literacy can be defined as sorting out the information obtained.”
(Hakan)

“As far as I guess, it can be defined as accessing the needed information thanks to opportunities of digital era and using the information properly after a synthesisation process.” (Gülşen)

“It can be defined as the ability to look for the needed information in the correct sources.” (Fatih)

“As far as I know, it is to understand the information and use it properly.”
(Doğukan)

“It can be defined as searching on Google properly or using some reliable websites.” (Semiha)

“Yes, of course. I think it’s about using the information properly.” (Meryem)

“Yes, I have. Information literacy means accessing any information needed, determining whether the information found on the internet is reliable or not, knowing what sources one can make use of to reach the needed information.”
(Sena)

“Yes, I have, yet I can’t define it. Is it about accessing information?” (Cem)

“Yes, I have. It means accessing the correct information and sharing it.” (Belgin)

“Yes, I have. In short, it’s the ability to find the information that you need, to determine what sources you should turn to for that information and finally decide whether the information you have reached is reliable or not.” (Metin)

As can be seen from the statements of the interviewees, information literacy can be defined as accessing the needed information, especially on online resources, checking its reliability and using it properly. Afterwards, the interviewees were given a full definition of information literacy in order to help them answer the two follow-up questions. Being certain

that interviewees understood what information literacy is and what it covers, they were asked a follow-up question. The question was whether they believed they were an information literate EFL teacher or not. 15 out of 20 EFL teachers stated that they were an information literate person, and the reasons behind this thought. 4 of the interviewees said that they were partly information literate EFL teacher and only one of the interviewees stated he was not an information literate EFL teacher.

The first follow-up question of the second interview question was:

“Do you think you are an information literate EFL teacher?”

Before the participants started answering the question, they were given a definition of information literacy so that they could easily decide whether they were information literate or not.

The answers of those who believe that they are an information literate EFL teacher are listed below.

“Yes, I do because I can access any information I need and evaluate whether it’s reliable or not.” (Tarik)

“Yes, I do. I can find any information on the internet by reading articles, watching videos or following the related pages on the internet.” (Hülya)

“Yes, I do because I can access anything on the internet.” (Fatih)

“Yes, I think I am an information literate English language teacher because I can access any information that I need on the internet.” (Meryem)

“Yes, I strongly believe that I am an information literate EFL teacher. Throughout my thesis, I easily accessed the information I needed.” (Metin)

5 of the interviewees think that they are information literate because they can access the information that they need.

“Yes, I think I am information literate because I always suspect the reliability and credibility of the information I come across. After some research, I myself decide whether the information is reliable and credible depending on the sources I have reached.” (Furkan)

“Yes, I am an information literate EFL teacher as I can access any information I want and question reliability of the information I come across on the internet.”
(Cem)

2 of the interviewees regard themselves as information literate since they can access and evaluate the information that they find.

The answers of the participants who think that they are information literate because they can access, evaluate and use information properly are listed below.

“Yes, I do. As I prepare books for the Ministry of National Education, I can’t rely on just one resource. I find the information on the net or the books, and then try to learn what other sources say about it. Afterwards, I evaluate the information I have found and adjust it according to the needs of students and finally use it.” (Melis)

“Yes, I do because I like preparing activities for my students, so I always search for new information, evaluate it and use it according to the needs of my students.” (Gülşen)

“Yes, I do because I have completed my master’s degree. Throughout my study, I had to access information from different sources, and I did. By evaluating the information I had reached, I created new information. It’s not possible for a teacher who had master’s degree to be information illiterate.”
(Semiha)

3 of the interviewees think that they are information literate because they can access any information that they need, evaluate its reliability and credibility and eventually use it according to their needs.

The answers of participants who believe they are information literate, yet don’t give any reasons why they think so are given below.

“Yes, I think I am an information literate English language teacher.” (Ayşe)

“Yes, in my opinion, I am an information literate EFL teacher.” (Sena)

“Yes, I absolutely do.” (Belgin)

“Yes, I think I am an information literate English language teacher.” (Berrin)

“When I take the definition that you have just made into consideration, I can certainly say that I’m an information literate English language teacher.”

(Melisa)

6 of the interviewees stated that they are information literate; however, they didn’t give any reasons as to why they see themselves as an information literate EFL teacher.

The answers of those who think they are partially information literate are given below.

“I am information literate to some extent, and I still try to improve my information literacy skills.” (Derya)

“I’m trying to be an information literate EFL teacher. My favorite list on my computer is full of websites related to English language teaching.” (Hakan)

“Yes, I do, but to some extent. I can find the information I need and evaluate it. Afterwards, I can integrate it into my lessons.” (Neslihan)

“I can’t say that I’m a total information literate English language teacher, but I try to do my best.” (Kardelen)

4 of the interviewees said they were information literate; however, they are not totally sure whether their level is enough to be called information literate, or they believe that they should have had higher information literacy level.

The answer of the only interviewee who stated that he was not information literate is given below.

“No, I don’t think so. What could I change in this education system even if I were information literate? Top-down systems don’t let teachers improve themselves. They restrict you a lot with the workload they place on you.”

(Doğukan)

The interviewee thinks being information literate doesn’t change anything in an education system where teachers’ opinions are disregarded by the authorities.

The second follow-up question of the second interview question was:

“What do you think the benefits of being information literate are while teaching English?”

The answers by the interviewees were placed into four categories called diversification of activities, raising awareness of novelties of language learning, creating attractive lessons, improvement of teacher performance.

The answers of interviewees who highlighted the importance of diversification of activities carried out during a lesson are given below.

“I can find useful materials on the internet and inform my students of their existence and usefulness. As an English language teacher, being information literate may lessen our dependence on the book and diversify the activities that we can use in lessons.” (Derya)

“An information literate teacher can learn new applications related to English language teaching or learning and use them in his or her lessons so that students can learn better because they are accustomed to using technological devices and learn better in this way.” (Fatih)

“First of all, I can follow what is new in the field of English language teaching. Secondly, you can plan different kinds of lessons that may appeal to students with different interests or learning abilities.” (Semiha)

“It may help us prepare creative activities for our students.” (Melisa)

“Being information literate enables an English language teacher to diversify the activities used during lessons and widens the perspectives of the teachers.” (Meryem)

“If you are information literate, you are not restricted to the sources around you, providing you more freedom in terms of information during your lessons.” (Furkan)

“We can bring reliable and authentic materials for listening and reading activities into classroom. Also, we can choose the activity or approach that will meet the needs of our students the best.” (Sena)

“First of all, you can search and find the newest techniques or methods related to ELT on the net or in books and apply them in your lessons.” (Metin)

8 of the participants stated that being information literate enables teachers to learn different activities and materials while doing research about English language teaching and apply them in lessons in order to help students learn better.

The answers of the participants who emphasized the importance of raising awareness of novelties in language learning as an information literate EFL teacher are given below.

“We can follow current trends in language teaching. Also, I can find suitable activities for my students whose interests or learning abilities vary. In addition to these, when students notice that their teacher is open to novelties and busy with doing research all the time, they can take him or her as a role model and start doing research about the things that they would like to learn, as well.” (Hülya)

“As an information literate EFL teacher, I search for the useful websites or sources that students may make use of and then I inform them of existence of such sources and advise them to use these sources to improve their English levels. If I weren’t an information literate EFL teacher, my students wouldn’t know these sources and benefit from them.” (Berrin)

“Teaching students how to use information literacy skill while learning a language is required. If the teacher is information literate, he or she can teach it to the students.” (Cem)

“I can find useful sources on the internet that my students can use while learning English and inform them of their existence and usage. This is one of the advantages.” (Belgin)

“Secondly, if you are able to find web 2.0 tools which may help students learn English, you can inform them of their existence and encourage them to study English.” (Metin)

“Thirdly, I can find new applications that my students can use and teach them how to use these applications so that they can learn better.” (Semiha)

6 of the interviewees stressed that information literate teachers are willing to learn new techniques and methods that are used for learning a language and teach them to their students and encourage them to practice the language through these new techniques and

methods. Making students aware of these novelties may be possible only if their teachers are information literate and try to discover what is new in language education.

The answers of interviewees who underlined the importance of creating attractive lessons through information literacy skills are given below.

“The materials that we can obtain from different resources make our lessons more enjoyable and make me feel more comfortable throughout my lessons.”
(Hakan)

“Teachers can find relevant information regarding the needs of students and use it to make their lessons more effective.” (Melis)

“I can follow the current trends in English language teaching. When I use the new techniques, methods or approaches in my lessons, students can learn in an attractive and collaborative environment.” (Gülşen)

“On the other hand, teachers can find different songs, games and activities to teach a specific subject and thus make their lessons appealing to their students.”
(Fatih)

“As an English language teacher, I can’t stick to the information provided in the coursebook. We are teaching a language and we may sometimes need to find some information about the culture of that language and bring it into the classroom to make lessons more attractive and interesting for students. These activities may help students gain different perspectives about that language. That’s why, I think it’s important.” (Neslihan)

“Sometimes it may be an approach or a visual that may foster learning during a lesson.” (Ayşe)

6 of the interviewees stated that information literate EFL teachers do research and access some information about English language teaching, and then they utilise the information in organizing their lessons or adjusting activities based on their students needs and thus can make their lessons more attractive or appealing to their students. Hence, in such an environment, students can learn better.

The answers of the interviewees who stressed the importance of improvement of teacher performance thanks to information literacy skills are as follows.

“We are also learning while teaching. There is always something new in English language teaching field, so in order not to fall back behind these novelties, we need to be able to do research and access the needed information well.” (Kardelen)

“One can learn many different things related to English language teaching and may use this new information in lessons.” (Ayşe)

“I am not sure, but information literate teachers may have a better command of English and their students may benefit from such a teacher a lot in terms of pronunciation.” (Doğukan)

“You can also learn the English traditions and customs and teach them to your students in the related theme so that students not only learn the language but also its customs and traditions.” (Metin)

“A decade ago, Web 2.0 tools were not used so widely as now, and I graduated from university without getting any formal education on these tools. If I weren't information literate, I couldn't have found helpful applications such as Kahoot and might not have learnt that they existed. That's why, being information literate is important for a teacher to make his or her lesson updated.” (Tarık)

5 of the interviewees stated that EFL teachers could learn new things related to English language teaching and keep up with the latest trend. By using the new information that they gathered in their lessons, they could provide better language education to students.

4.2.3. The relationship between information literacy levels of EFL teachers and their professional developments

The third question of the interview was:

“How important is information literacy in professional development of an English language teacher? Why?”

All of the interviewees stated that there was a positive relationship between their information literacy levels and professional development. In what ways information literacy levels of EFL teachers affect their professional development was given in the Appendix 11. All of the participants, regardless of their demographic features, stated that information

literacy levels of EFL teachers were highly important in professional development. Most of the participants stated that information literacy is most required for update of professional knowledge, whereas 7 of them stressed its importance in improvement of professional competence. One of the participants reported that information literacy played a key role in professional development in terms of time management. Also, there are EFL teachers who believed that information literacy skills could help them to access different education materials and events, and as consequence it allows EFL teachers to improve professionally.

The opinions of the participants about the relationship between information literacy and professional development are given below. The following comments indicate that being information literate helps EFL teachers stay up-to-date and increase their professional knowledge.

“Information is dynamic. For example, I graduated from university ten years ago and the literature available now must have changed a lot compared to the one that existed then.” (Tarik)

“The teacher should have the habit of learning new things so that he or she can benefit from information literacy and produce something and consequently motivate his or her students.” (Hülya)

“Information literacy plays an important role in a teacher’s refreshing himself or herself.” (Hakan)

“You can’t depend on your previous knowledge totally.” (Melis)

“Teachers must be familiar with these new platforms that students frequently use in order to have better communication with students.” (Gülşen)

“I can’t now teach a lesson with the knowledge that I had when I started my career.” (Fatih)

“The one who starts teaching should never stop learning.” (Doğukan)

“The world is constantly changing, so as English language teachers, we need to change and adapt to this world because the things that we learnt at university may not work as well as they used to do in the past. Therefore, I think it’s very important to develop ourselves professionally.” (Neslihan)

“If an English language teacher weren’t information literate, they would have difficulty in teaching the language and could not adapt to the new system.” (Melisa)

“Yes, I think it’s quite important. I no longer teach in the same way that I used to when I started my career because students have greatly changed, and I need to speak the same language as they do now.” (Meryem)

“Moreover, teaching profession is dynamic, so it necessitates following novelties in English language teaching and adjusting lessons accordingly.” (Ayşe)

“It is certainly important because the world is changing day by day because what is correct today may be regarded wrong the next day, so it’s crucial in professional development.” (Furkan)

“I think it is one of the skills that a teacher who values professional development should possess in order to update their knowledge.” (Sena)

“Also, when I have a problem with my students or classes, I can find information related to my weakness on several websites. Knowing how to reach the needed information is an information literacy skill, isn’t it?” (Metin)

Of all the 20 interviewees, 13 EFL teachers stated that their information literacy levels enable them to learn what is new in their field and keep up with them. The general idea is that the world is changing at an unprecedented rate, and they cannot teach English with the knowledge that they had when they graduated from university. Therefore, being information literate and updating their knowledge is crucial.

The answers of teachers who think that information literacy levels of EFL teachers influence their professional development in terms of improvement of professional competence are listed below.

“As long as you access and use the information that will improve you, you become more equipped.” (Semiha)

“Yes, it’s highly important. The more time an English language teacher allocates to doing research in their field, the better they become.” (Kardelen)

“Yes, it’s important. An information literate EFL teacher outperforms an EFL teacher who is not information literate.” (Berrin)

“Information literacy level of a teacher affects professional development dramatically. From a book that a teacher is reading to the seminars that he or she attended, all of these add up a lot to their professional developments.” (Ayşe)

“EFL teachers should use information literacy effectively not only in his or her classes but also in relationships with his or her colleagues and principals.” (Sena)
“It is highly important because a teacher can determine what is missing in his or her career and do some research about it and complete the missing part.” (Belgin)

6 of the participants stated that being information literate allows EFL teachers to expand their professional knowledge thanks to the information that they gather at the end of the information seeking process. Therefore, they become more equipped teachers after this process and thus have better teaching performance.

The answers of interviewees who are of the opinion that high information literacy level of EFL teachers enables them to access materials and events related to ELT and as a result, they can improve themselves professionally are shown below.

“Additionally, they can attend webinars, in-service trainings because face-to-face webinars or in-service trainings are organized less frequently.” (Gülşen)
“It’s quite important. Without having information literacy skills, you can’t find the events that will enhance your professional development.” (Metin)

Of all 20 EFL teachers taking part in interviews, 2 of them stated that being information literate was a way of finding or following events which would help them enhance their professional knowledge. Online webinars, in-service trainings are some of the events that were mentioned by the participants.

The answer of the participant who stresses that being information literate saves time for EFL teachers is given below.

“It would help me save time as I would know how and where to look for the needed information.” (Derya)

The answer indicates that being information literate helps EFL teachers access more resources within short time as information literate teachers know where the needed information exists and how it can be achieved.

The follow-up question after learning the opinions of the participants about the relationship between information literacy and professional development was:

“Do you think your information literacy level has helped or hindered your professional development so far? Explain briefly.”

Although all of the participants reported that their information literacy helped them improve themselves professionally, their answers to the question were evaluated in two categories: those who thought their information literacy levels helped them improve themselves professionally, and those who thought their information literacy levels helped them improve themselves professionally, yet they needed to be more information literate.

The answers of the participants who thought their information literacy levels helped them improve themselves professionally are given below.

“As there is not a huge gap between me and my students in terms of technology usage, I can use my information literacy skills well enough. Therefore, I can say that it has helped me improve myself professionally well enough.” (Derya)

“Yes, it has. There are some specific webpages to which I turn when I have a problem about my profession. I read the articles, opinion essays, or solutions to similar problems and therefore I learn new things and apply the ones that suit me best in my lessons or in my relationship with my colleagues.” (Fatih)

“Of course, it has. Whenever I come across a problem related to my profession, I go online and visit the websites on which I believe I can find solutions or recommendations to my problem. I mostly come up with a solution and apply it. Then, the problem is resolved.” (Semiha)

“Yes, it has. If I didn’t have information literacy skills, I wouldn’t develop my teaching skills and couldn’t keep up with the advancements in the field of education.” (Melisa)

“I have attended a lot of trainings related to English language teaching in different countries and these trainings helped me a lot, and I think finding such precious trainings is all thanks to my information literacy level.” (Meryem)

“It has helped me a lot in terms of teaching how to speak to my students. Because my classes were overcrowded, I thought I couldn’t allocate enough

time for speaking activities. I found a seminar about it and after the seminar, I started to use the techniques that I learnt, and it helped my students improve their speaking a lot.” (Berrin)

“I think I have benefitted from my information literacy level a lot in terms of professional development.” (Ayşe)

“It has certainly helped me to improve myself professionally. For example, I discovered online universities and benefitted from them as much as I could to improve myself professionally.” (Sena)

“So far, it has significantly helped me develop professionally. Even if it takes more time, I can check out different sources about the required information and form my own opinion depending on the information I have gathered. Otherwise, I could not develop professionally” (Belgin)

“Of course, it has helped me a lot. Thanks to my struggles to find events that will improve me professionally, I have attended different workshops and seminars. That’s why, despite being in the beginning of my career, I feel competent enough in terms of ELT.” (Metin)

As can be seen in the answers, the participants think that thanks to their information literacy levels, they have improved themselves professionally. The abilities to find appropriate educational events that may enhance their professional development and access the information required for professional development are considered to have played an important role in their professional development.

The answer of the participants who thought their information literacy levels helped them improve themselves professionally, yet they needed to be more information literate are given below.

“It has certainly helped me improve myself professionally, yet we aim to be better information literate teachers because there are thousands of things waiting to be explored in the field of English language teaching.” (Tarık)

“It has helped me to improve myself professionally to some extent, but I need to be more information literate because sometimes I may have some trouble accessing the needed information.” (Hülya)

“Yes, it has helped me a lot, but still I believe that I can improve myself much more because it has no limits.” (Hakan)

“My information literacy level is good enough to support me in terms of professional development, but I sometimes think teachers who have recently graduated from university are superior to me in terms of information literacy.” (Gülşen)

“Although I had difficulty in reaching the information I needed from time to time, I think it has helped me improve myself professionally and I believe I should be more information literate.” (Doğukan)

“It has played an important role in my professional development, yet I sometimes think that I should have been a more information literate person when I can’t access the information that I need.” (Melis)

“In fact, it has helped a lot so far, yet if it were higher, I could have accessed more sources when I needed because I remember having experienced difficulties while trying to reach some sources.” (Neslihan)

“Yes, it has. I can search and find in-service trainings on the internet related to English language teaching and thus I can improve myself professionally. I’m glad about my professional development I have had so far, but I could have been better.” (Kardelen)

“Thanks to my information literacy level, I was able to develop myself professionally, yet if I had been information literate in my university years as much as I’m now, I could have improved myself much more professionally.” (Cem)

The answers of the participants show that the EFL teachers who took part in the interviews believed that their information literacy levels played an important role in their professional development, yet they also believed that they should increase their information literacy levels so that they could improve themselves professionally more.

4.2.4. The relationship between information literacy levels of EFL teachers and the way they teach English

The last question that was directed to the interviewees was:

“Does information literacy level of an English language teacher affect the way she or he teaches English? Explain.”

Of all the 20 interviewees, 18 of them have stated that information literacy level of an English language teacher affects the way she or he teaches English, whereas two of them stated that information literacy level of an EFL teacher has nothing to do with the way she or he teaches English (Appendix 12). The answers of the participants were evaluated in three categories, and they are integration of information into lesson, preparation of lesson plans, improvement of communication between teacher and student. The Appendix 12 shows the categorization of the answers of the participants.

The answers of the participants who think information literacy level of an EFL teacher affects the way she or he teaches English in terms of integration of information into lesson are given below.

“When a teacher gets some information which he or she thinks is useful, if she or he can integrate the information obtained into his or her lesson, he or she can change his or her way of instruction as a consequence.” (Tarik)

“If you don’t have any background knowledge about that theme, you can’t teach beyond what is written in the book.” (Hakan)

“An information illiterate EFL teacher is inclined to teach in traditional methods, whereas an information literate teacher can find an activity to engage students in the lesson.” (Semiha)

“Of course. When we were at high school, we would be forced to memorize the words on the list given by the teacher, yet this was not a correct way of teaching English. I learnt this fact thanks to the seminars I had attended. That’s why, if an EFL teacher weren’t information literate, he or she would continue to make the same mistake.” (Meryem)

“It certainly does. An EFL teacher who is not information literate sticks to the book only and may have difficulty in teaching the language and even classroom management. However, an information literate EFL teacher search and find new

activities on the internet, apply them in his or her class so that students can learn better.” (Berrin)

“It certainly does. If an EFL teacher were not information literate, he or she wouldn’t be open to new ideas or new teaching methods and would continue to teach in the same way that she or he used in the beginning of their careers, although many things may have changed in English language teaching.” (Ayşe)

“It certainly does. Teachers need to adapt themselves to ever-changing world and bring modern and current information or techniques into classrooms.” (Furkan)

“Today’s teaching is not about conveying the information you have to students. Therefore, an information literate teacher learns how to engage students in lessons by doing research and use it in lessons. However, an information illiterate teacher doesn’t bother to find and apply such techniques or methods” (Cem)

“It certainly does. Even students can notice the difference between an information literate and information illiterate teacher because of the variety in activities that the former provides in his or her lessons.” (Belgin)

“Of course, it does. Having information literacy skills encourages you to reach new information of your interest, which is ELT here. That’s why, the way you teach a subject is naturally and positively affected by the information that you have gathered until now.” (Metin)

As can be seen from the answers, 10 of the participants think that being information literate affects the way English is taught. For example, by accessing information related to English language teaching, EFL teachers can carry out different activities in lessons, which they believe enhances the quality of instruction.

The answers of the participants who think that information literacy level of an EFL teacher affects the way he or she teaches English in terms of preparation are given below.

“After the research, instead of using the activity without doing any alterations, I plan how to adjust it based on my students’ needs, which makes my classes enjoyable and fruitful.” (Hülya)

“It absolutely does. For example, teacher should know how to carry out a lesson online. Preparing a lesson on Zoom is also a part of information literacy. If teachers cannot manage to adapt to such new things, I can’t say that he or she fails, but he or she may not provide the necessary instruction as needed.”

(Gülşen)

“Yes, it does. Before our lessons, we make lesson plans and if these lesson plans were not supported with the information that you have and were restricted to the information given in the coursebook, they might not leave the desired impact on the students.” (Kardelen)

The answers above demonstrate that 3 of the participants believe that information to be collected thanks to information literacy skills can be used effectively while planning a lesson and results in creating better lesson plans, so information literacy level positively affects the quality of the instruction provided in classrooms.

The answers of the participants who think that information literacy level of an EFL teacher affects the way he or she teaches English in terms of improvement of communication between teacher and student are given below.

“They can keep themselves updated and consequently understand their students better.” (Fatih)

“A teacher who has this skill will help his or her students better.” (Doğukan)

“An information literate EFL teacher can solve the problems of their students better by doing some research and knowing where to find the related information compared to the one who is not information literate.” (Sena)

As can be seen in the answers, 3 of the participants think that being information literate helps EFL teachers understand their students better and find solutions to their problems easily by doing research.

After learning their opinions about the relationship between information literacy levels of EFL teachers and the quality of instruction, the participants were asked a follow-up question. The question was:

“Could you tell me about a specific situation in which your information literacy level helped you improve the quality of your instruction?”

Of all the 20 participants, 14 of them answered the question with their own experiences, yet 6 of them couldn't give any answers to this question because they couldn't remember a specific situation which increased the quality of their lessons. The answers of the participants are given below.

"In one of my lessons with students who wanted to take English exam in order to study in a field related to language, I thought that they might have a difficulty learning relative clauses. Therefore, I did some research by watching videos on the Internet or checking the grammar books I had. I noticed that all of the teachers taught the subject deductively and thought this might be a problem for students. In the lesson, I taught it inductively rather than deductively, my students learnt the subject quite well." (Tarık)

"My students always question why they need to learn English, and I couldn't break their prejudices against English. Later, I did some research on the internet and found a video in which people from all over the world were saying "Hello" in English. I asked them whether they had their own mother tongue. They said 'yes' and at that moment I said that if everyone in the world spoke only their mother tongue, there wouldn't be an international connection in the world. That's why, we need to learn this language, I said, and then they seemed a bit more convinced." (Hülya)

"My students were going to take an English exam, so I examined a lot of books about how to answer the types of questions in this exam and prepared a booklet which included all the tips to answer these questions. My students liked it a lot and stated that it was a useful resource for them." (Derya)

"The difficulty in learning irregular verbs is obvious to anyone. I did some research on the internet and found an activity. I did that activity in my lesson, and it really worked. My students were able to learn better thanks to this activity." (Hakan)

"While searching for something new for my students on the Internet, I came across some skill-based activities and I tried to teach through these activities in my lessons. Not only did my students learn the subject but also enjoyed during the lesson a lot." (Gülşen)

“When I first started my career, I would think that writing a word five times would help students to learn that word, so I would give my students this kind of assignment. Later, I figured out that it didn’t work because my students didn’t remember the words that they wrote several times. Therefore, I went online and searched for new techniques used for vocabulary teaching. I came to understand that the technique that I used was totally useless. In the following lessons, I used the new techniques I had learnt and noticed that students could learn better.” (Fatih)

“I had a class in which nearly all the students were afraid of raising their hands and answering the questions that I directed, even if they knew the answer very well. Whatever I said, I couldn’t convince them to raise their hands confidently. I searched on the net and found out that a ball would solve this problem. In the following lesson, I threw the ball at the student who I believe could answer the question that I was asking, and she caught the ball and sent it to another student. It turned into a game which helped my students overcome their shyness and participate in lessons more confidently.” (Semiha)

“After attending an online workshop which I came across on the internet, I learnt that regular and irregular verbs could be taught better with the aid of songs. Therefore, the next time I taught regular and irregular verbs, I used a song to teach students irregular verbs and I noticed that it worked a lot better than traditional memorizing method would do.” (Kardelen)

“In one of the seminars I took, I learnt how to use Web 2.0 tools and then I tried to apply it in my class despite the opposition of the principal, who opposed to the use of smartphones in classes. Everyone in the lesson participated in the lesson and enjoyed a lot. After the effectiveness of this tool was heard in the school, the principal wanted me to organize an event in which all the classes at school can participate.” (Meryem)

“When I first started to teach at high school level, I had never taught some subjects like past perfect tense or reduction of relative clauses. Therefore, I went online and watched lots of videos about them in order to teach these subjects better to my students. I believe my struggles brought good results.” (Berrin)

“While doing some research about the Web 2.0 tools that could be used in lessons, I came across a website called Kahoot. After a few tries at home on my own, I learnt how to use it effectively and afterwards I started to use it in my lessons.” (Ayşe)

“When we first started teaching online at the beginning of the pandemic, I did some research on how to engage students in my lessons and discovered many Web 2.0 tools. After I started to use them in my lessons, I easily determined who actively participated in my lessons or who just joined the meeting and did nothing thanks to the reports these tools could provide. Based on the results of these reports, I evaluated my students’ performances.” (Sena)

“My students were experiencing some difficulties in learning irregular verbs, so I decided to do some research to overcome this hardship. I went online and found a few suitable activities on the internet. Later, I did the same activity in my lesson, and it gave positive results.” (Belgin)

“I once noticed that our students graduated from high school without reading a poem in the target language, so when I have time, I always look for poems at their level and categorize them based on their themes or grammar structures. When I need to teach that theme or grammar structure, I teach it through the poem I found earlier, and it really works for my students.” (Metin)

The answers show that the participants sought to improve the quality or effectiveness of their lessons by doing some research or attending face-to-face or online seminars. It can be also understood from the answers that they changed the way they taught a specific subject and managed to increase the effectiveness of their lessons. It is seen in the answers that the participants were willing to find and learn new teaching materials to teach students better. New activities and materials, Web 2.0 tools and poems were the novelties that the participants brought into their lessons.

During the interviews, the participants were addressed four questions. The first question was about whether they were familiar with 21st century skills or not. Nearly all of the participants stated they somehow knew some of these skills; however, only one of them mentioned information literacy as a 21st century skill. Afterwards, whether they can integrate 21st century skills into their lessons were asked to the participants, and majority of them (n=14) stated that they totally or partly integrated some of these skills into their lessons.

Learning to learn, information and communication technology skills, critical thinking, problem-solving, creativity, innovation, leadership, communication, collaboration, social and intercultural skills are the skills that they think they can successfully integrate into their lessons. 6 of the participants said that they were unable to integrate these skills into their lessons. Curriculum, overcrowded classes, exam-oriented classes, limited weekly lesson hour, unsuitable physical conditions of classroom, overfocus on grammar teaching and coursebook which are unsuitable for 21st century skills were the reasons why EFL teachers couldn't integrate these skills into their lessons.

With the second question, the familiarity of the participants with the term information literacy was investigated, and more than half of the participants stated they heard the term information literacy, yet they were mostly unable to define the term broadly. Only two of the participants, both of whom had master's degree, were able to define information literacy broadly.

In the third question, the participants were asked whether there was a relationship between information literacy and professional development, all of them declared that there was a positive relationship between information literacy and professional development, and also all of them said that their information literacy levels helped them improve professionally.

The last question was examining the opinions of the participants about the relationship between information literacy and the way they taught the language in classroom. All the participants except for two stated that information literacy positively affected the way EFL teachers taught the language.

CHAPTER V

DISCUSSION

The current study examined the information literacy levels of EFL teachers based on age, gender, faculty of graduation, education level, level of school and years of experience in profession through a questionnaire and interviews.

5.1. Quantitative Findings

5.1.1. The relationship between information literacy levels of EFL teachers and age

In this study, the first research question was whether information literacy levels of EFL teachers differed on the basis of the age variable because age was considered as an important factor that might positively affect information literacy levels of EFL teachers. However, the results put forward that there was no significant relationship between information literacy levels of EFL teachers and their ages. That is, age is not determinant of information literacy levels of EFL teachers. Although the mean scores of the 26-35, 36-50, and 51+ age group are over the average, EFL teachers who are over 51 years old have the highest mean score both in information literacy scale and its subscales separately.

This finding corroborates the results in Shonfeld, Aharony and Nadel-Kirtz's study (2021). In their study, they investigated teachers' perceived information literacy self-efficacy and found out that there was no correlation between perceived information literacy self-efficacy of teachers and their demographic features, namely age, gender and ethnicity. Also, in another study carried out by Atakişi (2019) no relationship was found between age and information literacy levels of teachers. However, as in the current study, the teachers who are 51 years and older, the eldest age group of the participants, were found to have a higher information literacy levels.

In contrast with the finding related to the age and information literacy levels of EFL teachers in this study, Aharony and Gur (2017) stated in their study that the older students were, the higher information literacy levels they had. The difference between Aharony and Gur's study and current study may have stemmed from the range ages the studies had. In this study, there are three different age range, 26-35, 36-51 and 51+, whereas in Aharony and Gur's study, the participants were first-year university students, and their average age was 23. In another study, examining teachers' information literacy self-efficacy beliefs,

Akkoyunlu and Kurbanoglu (2004) found out that as teachers got older, their information literacy self-efficacy beliefs decreased. As in this study, as people get older, their information literacy level is expected to increase; however, in Akkoyunlu and Kurbanoglu's study, the case is the just opposite. This difference may result from the fact that in today's world, teachers prefer looking for the needed information on the internet to going to libraries and checking out the written materials, so reaching some specific information requires ICT knowledge. For this reason, as teachers get older, their information literacy self-efficacy tends to decrease because they are not digital natives and may have difficulty in adapting themselves to technological advancements. In the literature, there are many studies which suggest that information and communication (ICT) literacy levels of teachers decreases with age. In one of these studies (Mazoya, Ismail, & Manyilizu, 2015), discovered that ICT literacy level of secondary school teachers decreased as they aged.

5.1.2. The relationship between information literacy levels of EFL teachers and gender

Gender was thought to be one of the variables that might affect the information literacy levels of EFL teachers, so the second research question was formed as follows: Do the information literacy levels of EFL teachers differ on the basis of gender? The results put forward that there was no significant relationship between the information literacy levels of EFL teachers and their gender. However, in ethical and legal regulations in information use subscale, it was found that there was a significant relationship based on the genders of EFL teachers in favour of females ($p < 0.05$). That's to say, female EFL teachers pay more attention to ethical and legal regulations while they seek information, and also evaluate and utilise the information that they have found. Additionally, regarding the mean scores of the scale and subscales, it can be seen that female EFL teachers tend to have higher information literacy levels than male EFL teachers, although the difference between the mean scores is little.

The difference between female and male EFL teachers in ethical and legal regulations in information use may have been caused by the stereotypical characteristics of females and males. Portillo and DeHart-Davis (2009) stated that women are more inclined to obey rules than men do, which supports the finding of the study that female EFL teachers tend to abide by ethical and regulations in information use more than their male counterparts. Taylor and Dalal (2017) also stated in their study that females are better at information literacy skills

such as evaluating a site or source, currency of a site, quality of a writing on the site or verifying the information on the site. The relationship between information literacy level and gender has been investigated in some other studies as well. In one of these studies (Özbay & Benzer, 2013), which aimed to investigate the information literacy levels of Turkish pre-service teachers, it was found that there was no relationship between the information literacy levels of Turkish pre-service teachers and their gender. The finding in the study is in line with the one in the current study. Similarly, Soleymani (2014) published a paper in which he investigated the relationship between information literacy and academic performance among students of medical sciences and he discovered that there was no significant relationship between the information literacy levels of students and their gender.

In an information society where women and men both have equal rights, it is not surprising not to discover any correlations between the information literacy levels of EFL teachers and their gender because anyone, regardless of their gender, can reach any information that they desire. For example, they can use the internet equally free or visit the library and study or do research as much as they want. Therefore, it can be concluded that gender can't be a factor that influences information literacy level.

Unlike the studies mentioned in the previous paragraph, there are studies which demonstrate that there is a significant relationship between information literacy and gender. In a study carried out to examine information literacy skills of social work students (Deveci Topal & Çoban Budak, 2019) a significant difference between information literacy skills of social work students and their genders was reported. Female social work students have higher information literacy compared to their male counterparts. Similarly, in his study, Atakişi (2019) also pointed out a significant difference between the information literacy levels of teachers and their gender in favour of female teachers.

One of the few factors that may differentiate females from males in terms of information literacy could be their personality traits. In this context, the most influential personal trait can be taken as being autonomous since autonomy in learning includes identifying and selecting relevant sources and support (Chan, 2010), and it's been stated several times in the study that both identifying and selecting relevant sources are crucial in information literacy. As stated by Varol and Yılmaz (2010), female learners tend to behave more autonomously than male learners during learning process. Hence, this difference in

being autonomous between female and male EFL teachers may have impacted their information literacy levels in favour of female EFL teachers.

5.1.3. The relationship between information literacy levels of EFL teachers and faculty of graduation

In Turkey, there are two ways to get the English language teacher title. The first one is to graduate from a faculty of education. The other one is to attend a compulsory pedagogical training during the last year of university education or after graduating from a faculty of science and letters. Although the compulsory pedagogical training provides courses of educational sciences such as psychology of education, counselling and guidance and classroom management, which are already taught at faculty of education, the main courses that students take at faculty of education and faculty of science and letters are different. For example, a student who studies at English language teaching department at a faculty of education takes courses like language acquisition, approaches to English language learning and teaching, and teaching foreign language to young learners. However, a student studying at a faculty of science and letters doesn't take these courses, even during their compulsory pedagogical training. Instead, they take pedagogical courses such as introduction to educational sciences, classroom management and psychology of education (YÖK, 2021). Hence, it was hypothesised that the faculty that EFL teachers graduated from may have an impact on the information literacy levels of EFL teachers, so it was included in the study as the third variable. The results showed that there was no significant relationship between the information literacy levels of EFL teachers and the faculty that they graduated from. When the mean scores of both groups are examined, it can be seen that EFL teachers who graduated from the faculty of science and letters are inclined to have higher information literacy levels compared to the ones who graduated from the faculty of education.

In their outstanding study, Akkoyunlu and Kurbanoglu (2004) found out that information literacy self-efficacy beliefs of graduates of faculty of science and letters and education were higher compared to the ones who graduated from teacher training college and faculty of vocational and technical education. However, their finding was that graduate of science and letters faculty had the highest information literacy beliefs, which is in line with the finding based on faculty of graduation variable in the current study. In his master thesis, Atakişi (2019) discovered that there was no significant relationship between the information literacy level and the major that in-service teachers graduated from. As there

were a number of in-service teachers graduating from different majors such as physical education, Turkish education, science education and pre-school education in his study, it can be asserted that the courses taken during university education have little impact on the information literacy levels of students. In another study, Sural and Dedebali (2018) investigated the curriculum literacy and information literacy levels of teacher candidates in department of Social Sciences Education. The participants of the study were from two different universities in Turkey. Therefore, the relationship between the information literacy levels of these teacher candidates and the university that they were studying at were examined. The results showed that there was no significant relationship between the information literacy levels of these pre-service teachers and the university that they were studying at. One of the reasons why the faculty that EFL teachers graduated from was taken as a variable in this study was the different courses that EFL teachers took during their university education and their potential impact on the information literacy levels of EFL teachers. However, as Sural and Dedebali's findings supported, the variety of courses taken during tertiary education didn't influence the information literacy levels of teachers. Since the current study investigates the information literacy levels of EFL teachers and there is no other major which enables students to become an EFL teacher at faculty of education, the variable was determined based on the faculty difference, not major difference. However, if so, information literacy levels of EFL teachers based on their majors could have been compared and contrasted.

Akkoyunlu and Kurbanoglu (2003) stated in their study that of all the three majors, namely computer and instructional technology education, elementary mathematics education and elementary science education, the students of the computer and instructional technology education had the highest mean in information literacy perceived self-efficacy. According to their statements in the article, that students of computer and instructional technology education had higher information literacy perceived self-efficacy may have stemmed from the courses in their major which pushed them to prepare project homework and to do research more than the other two majors. Therefore, they put forward that experience in getting and using information may play an important role in becoming information literate.

5.1.4. The relationship between information literacy levels of EFL teachers and education level

It's thought that there are a few factors that may positively affect the information literacy level of teachers, and education level tops in the list of these factors because it is believed that the more people educate themselves, the more capable they may become in terms of information literacy. Hence, in this study education level was chosen as one of the variables that were anticipated to have a correlation with the information literacy levels of EFL teachers.

The participants of the study reported that they had either bachelor's degree or master's degree. When the data was analysed, it was found out that there was no significant relationship between the information literacy levels of EFL teachers and their education level. However, the mean scores of both groups show that the information literacy levels of EFL teachers with master's degree are higher than those with bachelor's degree. This slight difference may be because of the experience they gained while doing research for their theses. Conway (2011) found out that information literacy skills of postgraduate students were higher than undergraduate students. This finding suggests that the more education one receives, the higher information literacy level he or she has. Therefore, it's not surprising that EFL teachers with a master's degree had a higher information literacy mean score compared to those with a bachelor's degree.

In literature, the number of studies that investigate the relationship between the information literacy level and education level is limited. Atakişi (2019) carried out one of these rare studies and discovered that teachers with master's degree had higher information literacy levels compared to the ones with bachelor's degree. Similarly, Naveed (2021) conducted a study regarding the information literacy self-efficacy of scientists and discovered that scientists with a doctoral degree had higher information literacy levels than those who had a lower degree.

5.1.5. The relationship between the information literacy levels of EFL teachers and level of school

English is taught as a foreign language from primary school to high school as a compulsory course in Turkey, so EFL teachers can work at the level they wish or available. The expectations from EFL teachers may differ based on the level of the school because students at a primary school cannot learn in the same way the ones at a high school can.

Therefore, teachers must adapt themselves accordingly. In order to adjust their instruction based on the conditions or expectations of the school level, EFL teachers may have to do some research, find the information that their students can benefit from or create new materials according to the needs of their students. Therefore, it was presumed that the information literacy level of EFL teachers might differ on the basis of the level of school they were working at as each one has a different experience throughout this process. The data collected, however, demonstrated that there was no relationship between the information literacy levels of EFL teachers and the level of school they worked at. When the mean scores of subscales were analysed, except for the defining information needs subscale, it was seen that EFL teachers working at high school tended to have higher information literacy level compared to those who were working at lower-level schools. Since the level of English taught at schools increases from primary school to high school, EFL teachers at high schools must deal with more demanding courses and students and as a consequent may have to push themselves a little bit more during information search process in contrast with their colleagues working at primary and secondary schools, and therefore they become more information literate as a result of the experience they gain throughout the process.

In contrast with the finding about the variable the level of the school EFL teachers were working at in the current study, Akkoyunlu and Kurbanoğlu (2004) discovered a significant relationship between the level of the school teachers were working at and their information literacy self-efficacy beliefs. According to the data given in their study, teachers who were working at secondary schools had higher information literacy self-efficacy beliefs compared to the ones who were working at primary schools. The study didn't include any teachers working at high schools, so it's not possible to make a conclusion that high school teachers would have been reported to have the highest information literacy beliefs if they had been involved in the study.

5.1.6. The relationship between the information literacy levels of EFL teachers and years of experience in the profession

“Experience is the father of wisdom” is an English proverb that highlights the importance of experience in every aspect of life. This point of view made the years of experience in the profession one of the variables of the study since it was assumed that the more experience in the profession teachers had, the more information literate they would become. The experience that teachers have gained throughout their careers is supposed to

enable them to deal with any problem related to their instruction easily as they may know where to look for the needed information, how to evaluate the information obtained, and how to integrate it into their classes. For this reason, it was assumed that there was a relationship between the information literacy levels of EFL teachers and their years of experience in profession. However, the results refuted this hypothesis. According to the results of the study, there is no significant relationship between the information literacy levels of EFL teachers and their years of experience in profession. When the mean scores of the groups based on the years of experience were examined, it was discovered that EFL teachers with the least experience in profession (0-5 years) had higher information literacy levels compared to the other groups in all subscales but legal and ethical regulations in information use subscale.

Similarly, Atakişi (2019) investigated the relationship between information states of teachers and pre-service teachers based on various variables, and years of experience in profession was one of them. No significant relationship was found in his study, either.

As mentioned before, most people in the world turn to the Internet when they want to reach some specific information about any subject. Visiting libraries and flipping through pages are considered old-fashioned way of doing research. For this reason, in order to reach the desired information, people must be capable of using technological devices to connect the Internet and find the relevant information. Users of these new technological devices are categorized as digital natives and digital immigrants. Digital natives are the generation who was born into the digital age and consequently they are assumed competent in technology use. However, digital immigrants are those who learned to use these devices at their adult ages, and they are presumed to have difficulty in use of technology (Wang, Myers & Sundaram, 2012). As a consequence, EFL teachers with the least experience had higher information literacy levels although they had lower experience in profession.

The reason why the most experienced group had the highest mean in ethical and legal regulations in information use is that the previous generations were raised within a stricter environment than the new generation is raised, so obeying the rules and following the regulations can be considered as their nature.

In contrast to this finding, Naveed (2021) discovered a significant relationship between the information literacy self-efficacy and research experience of scientists. His study suggested that as the number of years spent in the profession increased, their information

literacy self-efficacy increased, as well. This finding, as stated before, contradicts with that of the current study. Contrary to Naveed's study, K1ymacı (2019) found that there was a negative relationship between the information literacy levels of teachers and years of experience in profession. His finding indicated that the information literacy levels of teachers decreased as the number of years of experience in profession increased. In other words, although teachers get more experienced in profession, their information literacy levels stay lower compared to the ones with less experience in profession.

5.2. Qualitative Findings

5.2.1. Opinions of the participants about 21st century skills

As information literacy is one of the 21st century skills, the interview started with the question whether the participants had heard of the 21st century skills before. If they did, they were asked to name a few. In fact, the first question was a transition question to information literacy because the question was directed to the participants in order to find out whether they would state information literacy as a 21st century skill. However, only one of the participants named it during the interviews. It may be because some information literacy skills overlap those of information and communication technology (Badke, 2009). As people prefer gathering information online by using devices such as computers, laptops, and smartphones more than printed materials, they tend to mention ICT literacy rather than information literacy.

In order to code the answers given by the participants, 21st century skills were categorized as core subjects, 21st century themes, life and career skills, learning and innovation skills, and information, media and technology skills and each answer was put in the related category.

21st century skills have been attracting a lot of attention from researchers especially for the last decade, so they have been investigated in many studies. In one of these studies, which investigated the preservice ELT teachers' beliefs and perceptions on 21st century learning and innovation skills, Bedir (2019) stated that pre-service ELT teachers mostly perceived 21st century skills as integration of technology into lesson. Similarly, the answers in this study show that most of the EFL teachers who participated in the study also perceived 21st century skills as skills related to technology use. Similarly, Probert (2009) examined the understandings and practice of information literacy. Her findings revealed that nearly one third of the total participants in her study mentioned ICT as an attribute of an information literate person. In another study, Erdoğan (2020) found out that information, media and

technology self-efficacy beliefs of preservice teachers of Turkish language were higher than life and career skills, and learning and innovation skills.

Regarding the results aforementioned studies achieved, it can be concluded that the participants of the current study perceived information, media and technology skills as crucial skills that one should possess and be efficient in so as to reach the desired information as an information literate person. Also, it could be inferred that most of the EFL teachers in the study associate 21st century skills with information and communication technology skills. It is most probably because 21st century is regarded as an era of information and technology, so when they were asked what 21st century skills were, they answered the questions depending on their hearsay about 21st century skills. Therefore, most of the participants stated skills related to category of information, media and technology skills, especially information and communication technology skills.

Similarly, when the interviewees were asked whether they could integrate 21st century skills into their lessons, they mentioned information and communication technology most, which shows that EFL teachers value information and communication technology skills more compared to the other 21st century skills. This may be stemming from the fact that today's world has a great dependence on technological devices and the Internet.

When the interviewees were asked what role 21st century skills play in language education, they said they could teach, and students learn English better through information and communication technology skills once again. This finding shows that information and communication technology skills are integral part of language education, especially after the increase in language applications, which help students learn and practice English.

Therefore, in language education, staying away from these advancements would be unwise because our students were born into this technology area and may learn better through these technological devices.

5.2.2. Opinions of the participants about information literacy

During the interviews, the participants were asked whether they had heard of a term called information literacy as a 21st century skill, and they were expected to define it if they heard or read something about it. More than half of the participants stated that they were familiar with information literacy to some extent. Therefore, none of the participants were able to define information literacy fully, yet a few of the definitions covered some of the

subskills of information literacy. The answers given by the participants were categorized as access to information, evaluation of information and use of information.

In literature, there are some studies related to information literacy. In one of these studies, when Lamont (2021) examined the teachers' understanding, perceptions and practice of information literacy, she found out that teachers knew little about the term information literacy, yet they stressed its importance and stated that students should be educated on information literacy. Likewise, Gross and Latham (2009) carried out interviews to scrutinize perceptions of information literacy of 20 undergraduate students and discovered that all of the participants know little or nothing about information literacy. The findings of both studies are consistent with that of the current study in terms of definition of information literacy.

This study illustrates that the most important attribute of an information literate person according to the answers of the participants was accessing information. As today's world, there is so much information on the Internet or there are so many printed materials that accessing the needed information can be regarded more difficult than ever. For this reason, the participants might have regarded accessing information as the most important attribute of an information literate person.

Evaluation of information and use of information were accepted equally important when the number of the participants who mentioned them was taken into consideration. As it was stated before, in information societies, one can find too much information, whether on the Internet or in the printed sources; however, evaluating the information, determining which information is more suitable for your purpose and later using the information to create something new are different skills. Without them, the existing information might not mean anything to learners. For example, an EFL teacher can access the information that he or she desires, but if that information is not internalized and used to prepare a better lesson plan, it doesn't provide any benefits to his or her instruction. Hence, the ability to access, evaluate and use information each should be considered like a chain ring because they can't function if they don't come together.

An information literate person has to pay attention to ethical and legal regulations, as well. However, during the interview none of the participants made any comments related to them. This is most probably because they, as EFL teachers, don't deal with producing

something new. Rather, they are the one who is in charge of teaching the topics or subjects in a book that were predetermined by higher institutions.

Statistics of this study show that the information literacy levels of EFL teachers who filled out the questionnaire are well above the average. Most of the interviewees, similarly, believe that they are information literate EFL teachers, yet some of them think their current level is not enough, so they are trying to improve themselves in terms of information literacy as much as possible. This finding demonstrates that EFL teachers can access any needed information, evaluate it and adjust it according to the needs of students and thereby teaching students English well enough.

5.2.3. Opinions of the participants about the relationship between information literacy and professional development

Learning doesn't stop after one graduates from a university or gets a degree. As the era that we live in is called information society, every second, every minute new information comes out, and therefore all professionals must take a step to keep up with the latest improvements. Teachers are one of these professionals, too and maybe they are the one who needs professional development more than any other occupational group.

Information literacy forms a basis for professional development of teachers because they always deal with information, and they are expected to be subject matter masters by their students. Therefore, examining the relationship between information literacy and professional development was a must for this study. During the interviews, the participants of the study were directed a question: Do information literacy levels of EFL teachers affect their professional developments? All of the participants in the study stated that information literacy levels of EFL teachers would affect their professional development. The answers were coded and categorized as update of professional development, time management, access to education materials and events, and improvement of professional competence.

When people are asked what professional development is, most of the answers one would get is attending conferences, seminars or workshops, yet professional development can also occur in informal settings like independent reading and research (Mizell, 2010, p.5). Most of the participants gave an answer which was related to independent reading and research. They said that the information available now was much more different than the information that they were taught during their university years, and therefore they needed to be information literate in order to access the necessary information and utilise it in their

classes. This finding is supported by framework of continuing professional development by British Council (2015). Based on the framework, requirements of professional developments that are related to information literacy are listed below:

- select and develop the activities, resources and materials which engage students and correspond to the aims of the lesson
- explore theories of learning and apply them to lessons
- develop and demonstrate proficiency in the target language in order to provide a good model for students
- select appropriate methodology and resources for introducing and practising specific areas of the target language and language skills
- develop and adapt materials and resources which conform to copyright regulations and acknowledge sources
- locate up-to-date and relevant information about national, regional and institutional educational policies
- locate up-to-date and relevant information about international, national, regional and institutional educational practice

The last two items listed above show how important it is to keep teachers themselves updated and they both can be achieved if teachers are information literate. Therefore, it can be concluded that most of the EFL teachers who took part in the study highlighted the key role of information literacy in update of professional knowledge.

As stated before, EFL teachers must develop and demonstrate proficiency in the target language so that they can become a role model for their students. Two of the participants stated that becoming better at the language they taught could be possible once they had higher information literacy. Similarly, in a study carried out by Yeşilçınar and Çakır (2018), EFL teachers were reported to be using printed resources and the Internet so as to improve themselves professionally, which shows that information literacy is an indispensable part of professional development.

Some of the participants stated that information literacy was important in professional development of EFL teachers in that it helped them access education materials and events. According to the requirements for personal development of EFL teachers by British Council (2015), developing and adapting materials and resources are the skills that EFL teachers should have in order to develop themselves professionally. When the number of materials

and websites or other printed materials available is taken into consideration, the ability to find the relevant or needed material plays a key role in professional development of EFL teachers. Additionally, it saves precious time of EFL teachers who are already busy with teaching at school and problems of their students.

Because of the COVID-19 pandemic, nearly all of the education events that were planned to be held face-to-face were cancelled and teachers were forced to attend online seminars, conferences and in-service training. As stated by one of the participants of the study, without information literacy skills, EFL teachers may not know how to find and attend such events, which hinders their professional development as a consequence. Under normal circumstances, EFL teachers should be able to reach information about face-to-face events that could support their professional developments through related websites, magazines, or journals, etc.

The interviewees were also asked whether their own information literacy level had helped or hindered their professional development and all of them stated that their information literacy level had helped them improve themselves professionally. It can be concluded from this finding that EFL teachers who participated in the interviews had high information literacy level because achieving professional development requires information literacy skills. It can also be concluded that EFL teachers can use their information literacy skills in order to improve their professional knowledge and competence.

5.2.4. Opinions of the participants about the relationship between information literacy and the way they teach the language in classroom

In the interviews, the participants were asked whether information literacy levels of EFL teachers could affect the quality of their instructions. Based on the answers obtained, nearly all of the interviewees were of the opinion that being information literate could affect the way an EFL teacher teaches the language in classroom. This finding is in accordance with that of Williams and Coles' study (2007), in which they suggested that the quality of instruction decreased on condition that teachers' confidence levels in their information literacy skills were low.

The answers of the interviewees were categorized as integration of information into lesson, preparation of lesson plans, and improvement of communication between teacher and student. Some of them thought that information literate EFL teachers could integrate what they learned into a lesson thereby enhancing the quality of education. For example, an

EFL teacher finds a new technique or method during teacher research process and integrates it into the lesson in order to teach students better. As stated by Mokhtar and Majid (2006), besides information and factual content, how a teacher teaches has an impact on how much and how well students learn. Also, Xu and Chen (2016) found a close relationship between information literacy and teacher effectiveness in lessons. Taken together, EFL teachers should always look for new ways to improve the quality of their lessons by using their information literacy skills.

The participants also stated that information literacy skills could be used to prepare better lesson plans for students. When their remarks about the relationship between information literacy and quality of instruction are analysed, it can be seen that the participants wanted to take personal differences into account and prepare a lesson plan that would suit more students' learning styles. As is known, lesson plans must be prepared based on the needs of students considering their learning styles in order to get the most out of the instruction. To this end, EFL teachers may review their background knowledge and learn new information about English language teaching with the help of their information literacy skills.

Improvement of communication between teacher and student was another point that the participants underlined during the interviews. Their answers suggest that EFL teachers can follow current developments about education through their information literacy skills, so they can build a better relationship with their students since they could know what today's students' problems or expectations are throughout academic year. Therefore, if EFL teachers behave accordingly, they will be able to engage students in lessons, and performances of students will most probably improve, as a result.

The answers of the interviewees suggest that information literate EFL teachers can improve the quality of their lessons by integrating new information, techniques, applications and activities into their lessons. Such integrations are appreciated by the students and motivate them into lessons and thus lead to better language education. The answers also demonstrate that EFL teachers are willing to find a new way of teaching when they notice something wrong with their instruction. In other words, EFL teachers are open to novelties and seek for the best possible option that suit their students needs.

CHAPTER VI

CONCLUSION

This study aimed to investigate the information literacy levels of EFL teachers based on six different variables, namely, age, gender, faculty of graduation, education level, level of school and years of experience in profession. In order to discover the information literacy levels of EFL teachers, a mixed method was applied. Whereas a 29-item information literacy questionnaire was applied for the quantitative data, 20 interviews were carried out with the participants who volunteered to answer 4 open-ended questions and their follow-up questions on Zoom for the qualitative data.

In this chapter, the results of the study are summarized and some recommendations for further research are given.

6.1. Summary of the Results

Based on the data collected through the information literacy questionnaire, the results are:

There is no significant relationship between the information literacy levels of EFL teachers and age, gender, faculty of graduation, education level, level of school and years of experience in profession.

The only statistically meaningful difference was found between the scores of ethical and legal regulations in information use subscale and gender in favour of female EFL teachers. This finding demonstrates that female EFL teachers are more likely to abide by ethical and legal regulations in information use than male EFL teachers.

In the light of the data obtained through the interviews conducted with 20 EFL teachers, the results are:

- Most of the interviewees heard the term 21st century skills; however, they couldn't name 21st century skills enough.
- Nearly all of the interviewees perceived 21st century skills as information and communication technology (ICT) skills.
- Only one of the interviewees mentioned information literacy as one of the 21st century skills.

- Some of the interviewees stated that they couldn't integrate 21st century skills into their lessons because of curriculum, coursebook, limited weekly lesson hour, exam-oriented classes and overcrowded classes.
- Most of the interviewees stated that activating 21st century skills in EFL lesson could lead to a better language education atmosphere.
- The majority of the interviewees heard the term information literacy; however, they couldn't provide a clear and elaborate definition.
- The interviewees highlighted the importance of the ability to access information, evaluate information and use information in their lessons.
- All of the interviewees thought that information literacy positively affected professional development.
- The interviewees stressed the significance of maintaining professional knowledge, time management, access to educational resources and activities, and improving professional competence through information literacy in their professional growth.
- Nearly all of the interviewees were of the opinion that information literacy positively affected the way they taught the language in classroom.
- The interviewees thought that information literate EFL teachers could integrate new information into their lessons, prepare better lesson plans and communicate with their students better.

To sum up, information literacy levels of EFL teachers do not differ based on age, gender, faculty of education, education level, level of school, and years of experience in profession. In addition, EFL teachers know a term called 21st century skills, yet they mostly regard 21st century skills as information and communication technology skills, and they hardly ever mention information literacy while listing 21st century skills. EFL teachers are also unable to define information literacy, and their answers are limited to access to information, evaluation and use of information. Moreover, they don't see obeying ethical and legal rules in information use as a characteristic of an EFL teacher. According to EFL teachers, information literacy has a positive impact on their professional development, and the way they teach the language in classroom.

6.2. Recommendations for Further Studies

The study includes participants from 6 central districts of Ankara, Turkey, so the results of the study cannot be generalized to the whole population in Turkey. In order to achieve better results based on information literacy levels of EFL teachers, researchers may carry out a study with more participants from all around the country.

In this study, the information literacy levels of EFL teachers were examined as a part of 21st century skills based on demographic features. However, the perception and attitudes of EFL teachers towards 21st century skills have yet to be explored fully. Therefore, the perceptions and attitudes of EFL teachers towards 21st century skills may be examined in the further studies.

As mentioned earlier, the interviewees believed that there was a relationship between information literacy and professional development of EFL teachers. This relationship may be a research subject for researchers who want to investigate a specific skill of 21st century and its effect on professional development.

Additionally, the relationship between information literacy and the way EFL teachers teach the language is a domain where much remains to be studied. Therefore, researchers may conduct an elaborate study on this relationship.

Information literacy is seen as a vital part of lifelong learning, so researchers may examine the relationship between information literacy levels of EFL teachers and their perceptions or attitudes towards lifelong learning.

As the results of the interviews show, information literacy skills and information and communication technology skills are frequently confused by EFL teachers. A study that focuses on the differences and similarities of these skills may be carried out.

6.3. Implications

21st century skills and information literacy skills are regarded as the skills that everyone should possess in technology and information era. However, the interviews conducted for this study showed that most of the EFL teachers are unaware of these skills or have partial knowledge about them. The importance of these skills is highlighted in many studies around the world, so what could be done to improve the awareness of 21st century skills, and information literacy skills?

Ministry of National Education should organize in-service trainings about 21st century skills and information literacy skills. In these trainings, the importance of these skills should be underlined, and EFL teachers should be taught how to integrate these skills into their classes. The interviews in this study showed that EFL teachers thought that the quality of an English lesson, and professional development depend on how information literate an EFL teacher is. Therefore, these trainings might be useful for EFL teachers.

Upon completing these in-service trainings, EFL teachers, together with academicians whose expertise is information literacy, may gather and carry out a workshop in which they plan how to improve the quality of EFL lessons through information literacy skills. The decisions made during this workshop could be shared with all the EFL teachers in Turkey.

Information literacy is a term that librarians are dealing with most, so pre-service EFL teachers should be educated about how to become information literate in cooperation with librarians in their universities. A lesson lectured by librarians could be added to the curriculum to help pre-service EFL teachers to reach the needed information, detect biases in an information source, evaluate the information gathered, and use it according to their needs.

REFERENCES

- Adalıer, A., & Serin, O. (2012). Teacher candidates' information literacy self-efficacy. *TOJSAT*, 2(2), 71-78.
- Adıgüzel, A. (2011). Bilgi okuryazarlığı ölçeğinin geliştirilmesi. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi*, (17), 15-28.
- Aharony N. & Gur H. (2017). The relationships between personality, perceptual, cognitive and technological variables and students' level of information literacy. *Journal of Librarianship and Information Science*. 1-18 Doi: 10.1177/0961000617742450.
- Akkoyunlu, B & Kurbanoglu, S. (2004). Öğretmenlerin bilgi okuryazarlığı öz-yeterlik inancı üzerine bir çalışma. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 27 (27). Retrieved from <https://dergipark.org.tr/en/pub/hunefd/issue/7811/102528>
- Akkoyunlu, B., & Kurbanoglu, S. (2003). Öğretmen adaylarının bilgi okuryazarlığı ve bilgisayar öz-yeterlik algıları üzerine bir çalışma. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 24(24). 1-10.
- Al-Asmari, A. (2016). Continuous professional development of English language teachers: perception and practices. *Advances in Language and Literary Studies*, 7(3), 117-124.
- Alberta Learning. (2004). *Focus on Inquiry: A Teacher's Guide to Implementing Inquiry-Based Learning*. Edmonton, Alta: Alberta Learning.
- American Library Association (1995). ALA code of ethics. *American Libraries*, 26: 673
- American Library Association (2000). (Online) Information literacy competency standards for higher education. Retrieved from http://www.ala.org/acrl/sites/ala.org.acrl/files/content/issues/infolit/Framework_ILHE.pdf
- Ananiadou, K. and Claro, M. (2009) *21st century skills and competences for new millennium learners in OECD countries*. Organisation for Economic Cooperation and Development. EDU Working paper no. 41.
- Ashraf, H., Ahmadi, F., & Hosseinnia, M. (2017). Integrating 21st century skills into teaching English: investigating its effect on listening and speaking skills. *Journal on English Language Teaching*, 7(4), 35-43.

- Atakişi, T. (2019). *Öğretmen ve öğretmen adaylarının 21. yüzyıl becerilerini esas alan bilgi okuryazarlık durumlarının çeşitli değişkenler açısından incelenmesi* (Master's thesis). Retrieved from <https://tez.yok.gov.tr>
- Badke, W. (2009). Media, ICT, and information literacy. *Online (Weston, CT)*, 33(5), 47-49.
- Bamidele, G. S., & Ibrahim, K. S. (2019). Teachers' perception of the impact of English language skills of students on media and information literacy. *Ianna Journal of Interdisciplinary Studies*, 1(1), 95-102.
- Bedir, H. (2019). Pre-service ELT teachers' beliefs and perceptions on the 21st century learning and innovation skills (4Cs). *Journal of Language and Linguistic Studies*, 15(1), 231-246.
- Bent, M., & Stubbings, R. (2011). The SCONUL seven pillars of information literacy: Core Model.
- Binkley, M., Erstad, O., Herman, J., Raizen, S., Ripley, M., Miller-Ricci, M., & Rumble, M. (2012). Defining twenty-first century skills. In *Assessment and Teaching of 21st Century Skills* (pp. 17-66). Springer, Dordrecht.
- British Council. (2015). *Continuing professional development (CPD) framework*. Retrieved from https://www.teachingenglish.org.uk/sites/teacheng/files/CPD_framework_for_teachers_WEB.PDF on 13th November 2021.
- Buenvinida, L. P., Rodriguez, M. T. M., & Sapin, S. B. (2020). 21st century characteristics of educators as perceived by laguna state polytechnic university faculty. *Advances in Social Sciences Research Journal*, 7(4).
- Bundy, A. (2004). Australian and New Zealand information literacy framework. *Principles, Standards and Practice*, 2.
- Candy, P. (2002). Lifelong learning and information literacy. White paper prepared for UNESCO, the US National Commission on libraries and information science and the National Forum on Information Literacy, for use at the Information Literacy Meeting of Experts, Prague, the Czech Republic. Retrieved September 20, 2021, from <

<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.119.5676&rep=rep1&type=pdf>>.

- Carr, J. A. (1998). Information literacy and teacher education. Washington, D.C.: *ERIC Clearinghouse on Teaching and Teacher education*. (ERIC Document Reproduction Service No. ED 424231).
- Chan, V. (2010). Teaching in higher education readiness for learner autonomy: What do our learners tell us? Readiness for learner autonomy: What do our learners tell us?. *Teaching in Higher Education*, 6, 37-41.
- ChanLin, L. (2013). Reading strategy and the need of e-book features. *Electronic Library*, 31(3), 329-344
- Choy, L. T. (2014). The strengths and weaknesses of research methodology: Comparison and complimentary between qualitative and quantitative approaches. *IOSR Journal of Humanities and Social Science*, 19(4), 99-104.
- Collinson, V., Kozina, E., Lin, Y., Ling, L., Matheson, I., Newcombe, L. & Zogla, I. (2009). Professional development for teachers: A world of change. *European Journal of Teacher Education*. 32(1) 3-19
- Conway, K. (2011). How prepared are students for postgraduate study? A comparison of the information literacy skills of commencing undergraduate and postgraduate information studies students at Curtin University. *Australian Academic & Research Libraries*, 42(2), 121-135.
- Çınar, M. (2021). The incorporation of 21st century skills into ELT. *International Journal of Language and Translation Studies*, 1(1).
- Dedebali, N. C., Daşdemir, İ. & Şan, S. (2019). Investigation of media literacy and information literacy levels of pre-service teachers. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 20(2), 595-630.
- Demirel, M., & Akkoyunlu, B. (2017). Prospective teachers' lifelong learning tendencies and information literacy self-efficacy. *Educational Research and Reviews*, 12(6), 329-337.
- Deveci Topal, A. & Çoban Budak, E. (2019). Information literacy skills of social work students. *Journal of Learning and Teaching in Digital Age*, 4(1), 15-24.

- Durodolu, O. O. (2018). Secondary school teachers' perceptions of information literacy skills. Mousaion: *South African Journal of Information Studies*, 36(1), 1-20.
- Eisenberg, M. B., & Berkowitz, R. E. (1990). *Information Problem Solving: The Big Six Skills Approach to Library & Information Skills Instruction*. Ablex Publishing Corporation, 355 Chestnut St., Norwood, NJ 07648.
- Ekşi, G. (2012). Foreign language instructors' computer and information literacy perceived self-efficacy: a school of foreign languages case. *ELT Research Journal*, 1(2), 91-108.
- Erdoğan, D. (2020). *Türkçe öğretmen adaylarının 21. Yüzyıl becerileri ile yaşam boyu öğrenme eğilimleri arasındaki ilişkinin incelenmesi* (Master's thesis) Retrieved from <https://tez.yok.gov.tr>
- Feng, L., & Ha, J.-L. (2016). Effects of teachers' information literacy on lifelong learning and school effectiveness. *Eurasia Journal of Mathematics, Science & Technology Education*, 12(6), 1653–1663.
- Godbey, S., & Dema, A. (2017). Assessment and perception of information literacy skills among teacher education students. *Behavioral & Social Sciences Librarian*, 36(1), 115. Doi:10.1080/01639269.2017/1387738
- Gross, M., & Latham, D. (2009). Undergraduate perceptions of information literacy: Defining, attaining, and self-assessing skills. *College & Research Libraries*, 70(4), 336-350.
- Gu, Y. (2020). Enhancement of college English teachers' information literacy in information environment. *International Education Studies*, 13(4), 106-112.
- Halverson, A. (2018). 21st century skills and the "4Cs" in the English language classroom. Retrieved from https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/23598/halvorsen_21_century_skills.pdf?sequence=1&isAllowed=y
- Herring, J. (2004). *The Internet and Information Skills: A Guide for Teachers and School Librarians*. London: Facet
- Hismanoğlu, M. (2010). Effective professional development strategies for English language teachers. *Procedia Social and Behavioural Sciences*, 2, 990-995.

- Hunzicker, J. (2011). Effective professional development for teachers: a checklist. *Professional Development in Education*, 37(2), 177–179.
- Johnston, N., Partridge, H., & Hughes, H. (2014). Understanding the information literacy experiences of EFL (English as a foreign language) students. *Reference Services Review*.
- Kıymacı, A. (2019). *Öğretmenlerin bilgi okuryazarlığının bazı değişkenlere göre incelenmesi* (Master's thesis). Retrieved from <https://tez.yok.gov.tr>
- Korkut, E., & Akkoyunlu, B. (2008). Yabancı dil öğretmen adaylarının bilgi ve bilgisayar okuryazarlık öz-yeterlikleri. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 34(34), 178-188
- Kuhlthau, C. C. (2004) *Seeking Meaning: A Process Approach to Library and Information Services*, Libraries Unlimited, Westport, CT.
- Kurbanoğlu, S. (2002). WWW bilgi kaynaklarının değerlendirilmesi. *Hacettepe Üniversitesi Edebiyat Fakültesi Dergisi*, 19(1).
- Kurbanoğlu, S. (2003). Self-efficacy: a concept closely linked to information literacy and lifelong learning. *Journal of Documentation*.
- Lamont, E. L. (2021). An investigation into secondary school teachers' understanding, perception and practice of information literacy and continuous professional development. *Reflective Professional*, 1, 1–31. <https://doi.org/10.48525/rp-2021-id127>
- Lau, J. (2006). *Guidelines on Information Literacy for Lifelong Learning*, International Federation of Library Associations (IFLA)
- Lemke, C. (2002). *EnGauge 21st century skills: Digital literacies for a digital age*. Naperville: North Central Regional Educational Laboratory (NCREL).
- Mankara, P. V. (2020). Integrating 21st century skills in English language teaching: an overview. *Language & Literature*, 10.
- Mazoya, A., Ismail, A., & Manyilizu, M. (2015). Age of teachers vs ICT use in Tanzanian secondary schools: A case of Dodoma Municipality. *International Journal of Computer Applications*, 132(14), 22-26

- McKenzie, J. (2000). The research cycle 2000. *From Now On the Educational Technology Journal*, 9(4), 1-10. Retrieved from <http://questioning.org/rcycle.html>
- Mizell, H. (2010). *Why Professional Development Matters*. Learning Forward. 504 South Locust Street, Oxford, OH 45056.
- Mokhtar, I. A., & Majid, S. (2006). Information literacy education in the context of project work: Application of multiple intelligences and mediated learning. In C. Khoo, D. Singh & A.S. Chaudhry (Eds.), *Proceedings of the Asia-Pacific Conference on Library & Information Education & Practice 2006 (A-LIEP 2006), Singapore, 3-6 April 2006* (pp. 207-218). Singapore: School of Communication & Information, Nanyang Technological University
- Naveed, M. A. (2021). Information literacy self-efficacy of scientists. *Information Research*, 26(1).
- Oxford University Press ELT. (2015) 21st century skills in ELT part 1: the rise of 21st century skill. Retrieved from <https://oupeltglobalblog.com/2015/07/02/21st-century-skills-in-elt-part-1-the-rise-of-21st-century-skills/>
- Özbay, M. & Benzer, A. (2013). Türkçe öğretmeni adaylarının bilgi okuryazarlığı üzerine bir değerlendirme. *Ana Dili Eğitimi Dergisi*, 1(3), 29-40.
- Özdemir, S. M., Akbaş, O., & Çakır, R. (2009). A study on the relationship between pre-service teachers' information literacy skills and their attitudes towards distance education. *Procedia-Social and Behavioral Sciences*, 1(1), 1648-1652.
- Pappas, M., & Tepe, A. E. (2002). *Pathways to knowledge and inquiry learning*. Libraries Unlimited.
- Partnership for 21st Century Skills (P21). (2009). Framework for 21st century learning. Tucson, AZ: Author. Available online: www.21stcenturyskills.org/documents/framework_flyer_updated_jan_09_final-1.pdf
- Portillo, S., & DeHart-Davis, L. (2009). Gender and organizational rule abidance. *Public Administration Review*, 69(2), 339-347.

- Probert, E. (2009). Information literacy skills: Teacher understandings and practice. *Computers & Education*, 53(1), 24-33. Doi: <https://doi.org/10.1016/j.compedu.2008.12.018>
- Sağlam, A. Ç., Çankaya, İ., Üçer, H., & Çetin, M. (2017). The effect of information literacy on teachers' critical thinking disposition. *Journal of Education and Learning*, 6(3), 31-40.
- Shishkovskaya, J., Bakalo, D., & Grigoryev, A. (2015). EFL teaching in the e-learning environment: updated principles and methods. *Procedia-Social and Behavioral Sciences*, 206, 199-204.
- Shonfeld, M., Aharony, N., & Nadel-Kritz, N. (2021). Teachers' perceived information literacy self-efficacy. *Journal of Librarianship and Information Science*. 1-14 Doi: 10.1177/09610006211026950
- Shujing, W. U. (2015). A study on university EFL teachers' information literacy in China. *Canadian Social Science*, 11(11), 55-59.
- Smith, J. K. (2013). Secondary teachers and information literacy (IL): Teacher understanding and perceptions of IL in the classroom. *Library & Information Science Research*, 35(3), 216-222.
- Society of College, National and University Libraries (1999). Information skills in higher education: A SCONUL Position Paper, available at: <https://www.sconul.ac.uk/sites/default/files/documents/coremodel.pdf>
- Soleymani, M. R. (2014). Investigating the relationship between information literacy and academic performance among students. *Journal of Education and Health Promotion*, 3. Doi: 10.4103/2277-9531.139677
- Solmaz, D. Y. (2017). Relationship between lifelong learning levels and information literacy skills in teacher candidates. *Universal Journal of Educational Research*, 5(6), 939-946. Doi: 10.13189/ujer.2017.050605.
- Sukamolson, S. (2007). Fundamentals of quantitative research. *Language Institute Chulalongkorn University*, 1(3), 1-20.

- Sun, W., & Xie, F. (2020). Investigation and improvement of the current situation of preschool teachers' information literacy. In 2020 *International Conference on Big Data and Informatization Education (ICBDIE)* (pp. 105-109). IEEE.
- Sural, S., & Dedebali N. C. (2018). A study of curriculum literacy and information literacy levels of teacher candidates in department of social sciences education. *European Journal of Educational Research*, 7(2), 303-317. Doi: 10.12973/eu-jer.7.2.303
- Tamilchelvi, P. N. & Senthilnathan, S. (2013). Information literacy for lifelong learning. *Conflux Journal of Education*, (1)2:29.
- Taylor, A., & Dalal, H. (2017). Gender and information literacy: evaluation of gender differences in a student survey of information sources. *College & Research Libraries*, 78(1), 90. Doi:<https://doi.org/10.5860/crl.78.1.90>
- Tosuncuoğlu, I., & Küçükler, H. (2019). The perceptions of information literacy by students in English language departments: A Comparative Study. *World Journal of Education*, 9(1), 125-134.
- Trilling, B., & Fadel, C. (2009). *21st Century Skills, Enhanced Edition: Learning for Life in Our Times*. John Wiley & Sons.
- Uçak, N. O., & Kurbanoglu, S. S. (1998). Information need and information seeking behavior of scholars at a Turkish university. In *64th IFLA General Conference August* (Vol. 16).
- Varol, B., & Yilmaz, S. (2010). Similarities and differences between female and male learners: Inside and outside class autonomous language learning activities. *Procedia-Social and Behavioral Sciences*, 3, 237-244.
- Wang, Q., Myers, M. D., & Sundaram, D. (2012). Digital natives and digital immigrants: Towards a model of digital fluency. *Business and Information Systems Engineering*, 5 (6), 409–419.
- Wanquan, G., & Tsytsiura, K. (2021). Information literacy as a factor of developing teaching competency in foreign language teachers in the Peoples Republic of China. *JETT*, 12(3), 133-145.

- Wijetunge, P. & Alahakoon, U.P. (2005). Empowering 8: the information literacy model developed in Sri Lanka to underpin changing education paradigms of Sri Lanka. *Sri Lanka Journal of Librarianship & Information Management*, 1, 31-41.
- Williams, D., & Coles, L. (2007). Teachers' approaches to finding and using research evidence: An information literacy perspective. *Educational research*, 49(2), 185-206.
- Williams, M. H., & Evans, J. J. (2008). Factors in information literacy education. *Journal of Political Science Education*, 4(1), 116-130.
- Xu, A., & Chen, G. (2016). A study on the effects of teachers' information literacy on information technology integrated instruction and teaching effectiveness. *Eurasia Journal of Mathematics, Science and Technology Education*, 12(2), 335-346.
- Yan-xia, D. (2017). Research on college English teachers' information literacy in information environment. *English Language Teaching*, 10(11), 37-43.
- Yeşilçınar, S., & Çakır, A. (2018). Continuing professional development process: English language teachers' views on the role of teacher research. *Journal of Language and Linguistic Studies*, 14(2), 61-75.
- YÖK, (2021). *Pedagojik formasyon eğitimi sertifika programına ilişkin çerçeve usul ve esaslar* retrieved from https://www.yok.gov.tr/Sayfalar/Kurumsal/IdariBirimler/egitim_ogretim_daire_bsk/pedagojik-formasyon-usul-ve-esaslar.aspx, on November 9, 2021.

APPENDIX 1: DEMOGRAPHIC INFORMATION SURVEY

İNGİLİZCE ÖĞRETMENLERİNİN BİLGİ OKURYAZARLIK DÜZEYLERİNİN İNCELENMESİ

Değerli katılımcı, İngilizce öğretmenlerinin bilgi okuryazarlık seviyelerini araştırmak için hazırlanan bu anket, 6 adet demografik soru ve 29 adet çoktan seçmeli sorudan oluşmaktadır. Tahmini 5 dakika sürecektir. Araştırmaya sağladığınız katkıdan dolayı teşekkür ederim.

Ümit ORAL

Başkent Üniversitesi ELT Bölümü

Yüksek Lisans Öğrencisi

İletişim:

Demografik Bilgiler

1. Yaşınız:

- ☐ 21-25
- ☐ 26-35
- ☐ 36-50
- ☐ 50 yaş üstü

2. Cinsiyetiniz:

- ☐ Erkek
- ☐ Kadın

3. Mezun Olduğunuz Fakülte:

- ☐ Eğitim Fakültesi
- ☐ Fen-Edebiyat Fakültesi
- ☐ Diğerleri (_____)

4. Eğitim Durumunuz:

- ☐ Lisans
- ☐ Yüksek Lisans
- ☐ Doktora

5. Çalıştığınız Seviye:

- ☐ İlkokul
- ☐ Ortaokul
- ☐ Lise

6. İngilizce öğretmenliğinde kaçınıcı yılınızdasınız?

- ☐ 0-5
- ☐ 6-10
- ☐ 11-15
- ☐ 16-20
- ☐ Daha fazla

APPENDIX 2: INFORMATION LITERACY SCALE

Aşağıdaki verilen Bilgi Okuryazarlığı Ölçeğindeki maddeleri okuyun ve verilen durumu ne sıklıkla gerçekleştirebildiğinizi işaretleyiniz.

BİLGİ OKURYAZARLIĞI ÖLÇEĞİ					
	Her zaman	Çoğu zaman	Bazen	Ara sıra	Hiçbir zaman
1. Bilgi edinmede düşünce ve ifade özgürlüğünü dikkate alma					
2. Bilgiye yasal bir şekilde ulaşma ve kullanma					
3. Elde edilen bilgi kaynaklarını inceleyerek temel düşünceleri özetleme					
4. Bilgi kaynaklarındaki farklı bakış açılarını anlama ve değerlendirme					
5. Web kaynaklarına ilişkin değerlendirme ölçütlerini dikkate alma					
6. Elde edilen bilgileri sistematik şekilde düzenleyerek sorunların çözümünde kullanma					
7. Bilginin temel özelliklerini, önemini ve çelişkilerini belirlemek için yeni bilgi ile önceki bilgiyi karşılaştırma ve bütünleştirme					
8. Gerekğinde kaynaklara yeniden erişebilmek için tüm bilgi alıntılarını uygun şekilde düzenleyerek kaydetme					
9. Kullanılan bilginin orijinal kaynaklarını tam ve doğru olarak gösterme					
10. Basılı kaynak ve elektronik ortamlardaki kişisel hak ve güvenlik konularını dikkate alma					
11. Elde edilen bilgiyi yorumlayarak sonuçlarını ortaya koyma					
12. Kullanılacak bilgiyle ilgili gizlilik ve güvenlik konularını dikkate alma					
13. Ulaşılan bilgiye dayalı olarak kavramlar ve çıkan sonuçlar arasındaki ilişkiyi belirleme					

	Her zaman	Çoğu zaman	Bazen	Ara sıra	Hiçbir zaman
14. Bilgi kaynaklarının türlerini ve alanlarını belirleme					
15. Bilgi ihtiyacını başkaları ile paylaşarak yapılandırma					
16. Elde edilen bilgiyi belli ölçütlere göre sınıflandırma					
17. Kaynaklardan elde edilen bilgiyi önceki bilgilerle ilişkilendirerek özgün bir şekilde yeniden ifade etme					
18. Bilgiyi ve bilgi kaynaklarını güvenirlik, geçerlilik, tarafsızlık, güncellik gibi ölçütlere göre değerlendirme					
19. Değiştirilmiş, yanlış ve taraflı bilgiyi fark etme ve sorgulama					
20. İhtiyaç duyulan bilginin nerede bulunacağını bilme					
21. Bilgi kaynaklarının türlerini ve önemini bilme					
22. Bilgi ihtiyacını tanımlama					
23. İhtiyaç duyulan bilgiyle ilgili temel kavramları bilme					
24. Bilginin temel özelliklerine göre nasıl düzenlendiğini bilme					
25. Bilgiye ulaşmada elektronik kaynaklardan yararlanma					
26. Web kaynaklarını, veri tabanlarını ve tarama motorlarını kullanırken, hangi anahtar sözcük ve ilişkili terimleri, nasıl kullanacağını bilme					
27. Bilgiye ulaşmada güncel basılı kaynaklardan yararlanma					
28. Bilgi ihtiyacının kapsamını ve yapısını sürekli olarak gözden geçirme					
29. Bilgi ve iletişim teknolojisindeki değişiklikleri izleme					

APPENDIX 3: MINISTRY OF NATIONAL EDUCATION RESEARCH PERMISSION



T.C.
ANKARA VALİLİĞİ
Millî Eğitim Müdürlüğü

Sayı :
Konu : Araştırma İzni

29.06.2021

BAŞKENT ÜNİVERSİTESİNE
(Eğitim Bilimleri Enstitüsü Müdürlüğü)

İlgi: a) MEB Yenilik ve Eğitim Teknolojileri Genel Müdürlüğünün 2020/2 sayılı Genelgesi.

Enstitünüz İngiliz Dili Öğretimi tezli yüksek lisans programı öğrencisi Ümit ORAL'ın "İngilizce Öğretmenlerinin Bilgi Okuryazarlık Düzeylerinin İncelenmesi" konulu çalışması kapsamında ilimiz merkez ilçelerine bağlı okullarda uygulama yapma talebi ilgi (a) Genelge çerçevesinde incelenmiştir.

Yapılan inceleme sonucunda, söz konusu araştırmanın Müdürlüğümüzde muhafaza edilen ölçme araçlarının; Türkiye Cumhuriyeti Anayasası, Millî Eğitim Temel Kanunu ile Türk Millî Eğitiminin genel amaçlarına uygun olarak, ilgili yasal düzenlemelerde belirtilen ilke, esas ve amaçlara aykırılık teşkil etmeyecek, eğitim-öğretim faaliyetlerini aksatmayacak şekilde okul ve kurum yöneticilerinin sorumluluğunda, gönüllülük esasına göre uygulanması Müdürlüğümüzce uygun görülmüştür.

Bilgilerinizi ve gereğini rica ederim.

Turan AKPINAR
Vali a.
Millî Eğitim Müdürü

Ek: Uygulama Araçları

Dağıtım:
Gereği:
Başkent Üniversitesi

Bilgi:
9 Merkez İlçe

Bu belge güvenli elektronik imza ile imzalanmıştır.



APPENDIX 4: LIST OF SCHOOLS THAT THE SCALE WAS IMPLEMENTED

1- Ankara / Altındağ İlçe Milli Eğitim Müdürlüğüne Bağlı;

Çocuk Sevenler Derneği İlkokulu
Hayme Hatun İlkokulu
Özdemir Gürocak İlkokulu
Şehit Mehmet Kocakaya İlkokulu
Şehit Mustafa Yiğit Alp İlkokulu
Ahiler Ortaokulu
Hacıbayram Ortaokulu
Karapürçek Şehit Osman Kablan Ortaokulu
Şehit Muzaffer Aydoğdu Ortaokulu
Şehit Savaş Batu Ortaokulu
Altındağ İnönü Anadolu Lisesi
Altındağ Şehit Resul Ekrem Anadolu Lisesi

2- Ankara / Çankaya İlçe Milli Eğitim Müdürlüğüne Bağlı;

Ahmet Andiçen İlkokulu
Arjantin İlkokulu
Çankaya ilkokulu
Bahçelievler Nebahat Keskin İlkokulu
Süleyman Uyar İlkokulu
Teğmen Kalmaz İlkokulu
Turhan Feyzioğlu İlkokulu
Ulubatlı Hasan İlkokulu
Yücestepe İlkokulu
Atatürk Lisesi
Aysel Yüce Türk Anadolu Lisesi
Çankaya Lisesi
Feramil Ferhat Kaya Anadolu Lisesi
Kırkkonaklar Anadolu Lisesi
Kocatepe Mimar Kemal Anadolu Lisesi
Ömer Seyfettin Anadolu Lisesi
Süheyl Ünver Anadolu Lisesi

3- Ankara / Etimesgut İlçe Milli Eğitim Müdürlüğüne Bağlı;

Ahi Evran Mesleki ve Teknik Anadolu Lisesi

Cemil Meriç Anadolu Lisesi

Sezai Karakoç Anadolu Lisesi

4- Ankara / Keçiören İlçe Milli Eğitim Müdürlüğüne Bağlı;

Çizmeci İlkokulu

İbrahim Akoğlu İlkokulu

İhsan Selatin Aras İlkokulu

Keçiören İlkokulu

Mehmet Akif İlkokulu

Melek Özen İlkokulu

Şenlik İlkokulu

Şinasi İlkokulu

Tevfik Ünsal İlkokulu

Hacı Sabancı Ortaokulu

Keçiören Şehit Arif Çakır Ortaokulu

Necip Fazıl Ortaokulu

Barış Manço Ortaokulu

Hacı Mustafa Tarman Ortaokulu

Hüseyin Güllüoğlu Ortaokulu

İbn-i Sina Ortaokulu

Kardeşler Cumhuriyet Ortaokulu

Kuyubaşı Şehit Oğuzhan Duyar Ortaokulu

Şehit Bayram Kavcı Ortaokulu

Şehit Halil Işılar Ortaokulu

Şehit Mustafa Ünal Ortaokulu

Ufuktepe Ortaokulu

Mecidiye Şehit Kavas Atanur Aytaş Ortaokulu

Bekir Gökdağ Anadolu Lisesi

Etlik Anadolu Lisesi

Kalaba Anadolu Lisesi

Nuri Pakdil Anadolu Lisesi

Şehit Ahmet Özsoy Kız Anadolu İmam Hatip Lisesi

5- Ankara / Mamak İlçe Milli Eğitim Müdürlüğüne Bağlı;

Mamak Anadolu İmam Hatip Lisesi
Nene Hatun Mesleki ve Teknik Anadolu Lisesi
Cumhuriyet Anadolu Lisesi

6- Ankara / Yenimahalle İlçe Milli Eğitim Müdürlüğüne Bağlı;

Afşin Bey İlkokulu
Ayşe Tokur İlkokulu
İsmet Kurtuluş İlkokulu
Kent Koop İlkokulu
Mehmet Akif Ersoy İlkokulu
Şehit İbrahim Çoban İlkokulu
Mehmet Emin Yurdakul Ortaokulu
Şehit Öğretmen M. Ali Durak Ortaokulu
Haydar Aliyev Ortaokulu
Özkent Akbilek Ortaokulu
Şehit Ali Öztürk Ortaokulu
Batıkent Anadolu Lisesi
Gazi Anadolu Lisesi
Mustafa Kemal Anadolu Lisesi
Zeynep Salih Alp Mesleki ve Teknik Anadolu Lisesi

APPENDIX 5: PERMISSION TO USE THE INFORMATION LITERACY SCALE

Bilgi Okuryazarlığı Ölçeği Gelen Kutusu x



Ümit Oral

Alıcı: abduallahadiguzel ▾

13 Mart Cmt 10:27



Sayın Hocam merhaba,

İzniniz olursa, üzerinde çalışmakta olduğum İngilizce öğretmenlerinin bilgi okuryazarlık seviyeleri ile ilgili tez çalışmamda geliştirmiş olduğunuz "Bilgi Okuryazarlığı Ölçeği"ni kullanmak istiyorum.

Saygılarımla.

Ümit ORAL

Başkent Üniversitesi

Eğitim Bilimleri Enstitüsü

Yabancı Diller Eğitimi Anabilim Dalı, İngiliz Dili Öğretimi

Yüksek Lisans Öğrencisi



Abdullah ADIGÜZEL

Alıcı: ben ▾

13 Mart Cmt 10:58



Tabii ki kullanabilirsiniz.

Çalışmalarınızda başarı ve kolaylıklar dilerim.



APPENDIX 6: SCORES OF ITEMS OF ACCESSING INFORMATION SUBSCALE

	Mean	Standard Deviation	Median
3. Summarising the basic ideas by examining the information sources obtained	4,40	0,75	5,00
4. Understanding and evaluating the different perspectives in information sources	4,50	0,69	5,00
5. Taking the evaluation criteria regarding web sources into account	4,28	0,80	4,00
16. Categorising the information obtained on the basis of specific criteria	4,28	0,83	4,00
17. Authentically re-stating the information obtained from the sources by correlating it with the prior information	4,36	0,84	5,00
Accessing Information 18. Evaluating information and sources of information on the basis of criteria such as reliability, validity, objectivity and currency	4,41	0,79	5,00
19. Recognising and questioning altered, incorrect and biased information	4,50	0,72	5,00
25. Utilising electronic sources in accessing information	4,69	0,58	5,00
26. Knowing which keywords and relevant terminology to be used and how to use them while using web sources, databases and search engines	4,63	0,64	5,00
27. Utilising current published sources in accessing information	4,17	0,92	4,00
29. Keeping up with the changes in information and communication technologies	4,39	0,71	4,50

APPENDIX 7: INFORMATION LITERACY LEVELS OF EFL TEACHERS AND LEVEL OF SCHOOL

	Level of School	n	Mean	SD		p
Defining Information Needs	Primary School	41	4,23	0,60	4,392	,111
	Secondary School	69	4,43	0,63		
	High School	98	4,40	0,50		
Accessing Information	Primary School	41	4,28	0,49	5,478	,065
	Secondary School	69	4,44	0,58		
	High School	98	4,46	0,44		
Utilising Information	Primary School	41	4,24	0,60	2,476	,290
	Secondary School	69	4,37	0,62		
	High School	98	4,39	0,59		
Ethical and Legal Regulations in Information Use	Primary School	41	4,49	0,49	4,255	,119
	Secondary School	69	4,37	0,61		
	High School	98	4,53	0,54		
Information Literacy	Primary School	41	4,29	0,50	3,449	,178
	Secondary School	69	4,41	0,56		
	High School	98	4,44	0,45		

APPENDIX 8: INFORMATION LITERACY LEVELS OF EFL TEACHERS AND YEARS OF EXPERIENCE

	Years of Experience	n	Mean	SD		p
Defining Information Needs	5 years and less	11	4,48	0,58	2,355	,671
	6-10 years	79	4,34	0,56		
	11-15 years	53	4,42	0,61		
	16-20 years	36	4,38	0,59		
	21 years and more	29	4,38	0,51		
Accessing Information	5 years and less	11	4,55	0,40	1,277	,865
	6-10 years	79	4,41	0,48		
	11-15 years	53	4,43	0,53		
	16-20 years	36	4,38	0,56		
	21 years and more	29	4,41	0,47		
Utilising Information	5 years and less	11	4,48	0,44	3,876	,423
	6-10 years	79	4,33	0,56		
	11-15 years	53	4,41	0,63		
	16-20 years	36	4,23	0,70		
	21 years and more	29	4,43	0,58		
Ethical and Legal Regulations in Information Use	5 years and less	11	4,36	0,41	2,061	,724
	6-10 years	79	4,45	0,56		
	11-15 years	53	4,50	0,52		
	16-20 years	36	4,44	0,65		
	21 years and more	29	4,51	0,57		
Information Literacy	5 years and less	11	4,49	0,42	1,830	,767
	6-10 years	79	4,38	0,47		
	11-15 years	53	4,43	0,54		
	16-20 years	36	4,36	0,57		
	21 years and more	29	4,42	0,48		

APPENDIX 9: OPINIONS OF PARTICIPANTS ABOUT 21ST CENTURY SKILLS

Participants	Unfamiliar with 21 st century skills	Familiar with 21 st century skills	Skills stated
Tarık		✓	Learning and Innovation Skills
Hülya		✓	Information, Media and Technology Skills
Derya	X		
Hakan		✓	Learning and Innovation Skills, Information, Media and Technology Skills
Melis		✓	Information, Media and Technology Skills
Gülşen		✓	Information, Media and Technology Skills
Fatih		✓	Information, Media and Technology Skills
Doğukan		✓	Information, Media and Technology Skills
Semiha		✓	Information, Media and Technology Skills
Neslihan		✓	Information, Media and Technology Skills
Melisa		✓	Information, Media and Technology Skills, Life and Career Skills
Kardelen		✓	Information, Media and Technology Skills
Meryem		✓	Information, Media and Technology Skills
Berrin		✓	Learning and Innovation Skills
Ayşe	X		Null
Furkan	X		Null
Sena		✓	Learning and Innovation Skills
Cem	X		Null
Belgin	X		Null
Metin		✓	Learning and Innovation Skills, Information, Media and Technology Skills

APPENDIX 10: OPINIONS OF PARTICIPANTS ABOUT INFORMATION LITERACY

Participants	Unfamiliar with information literacy	Familiar with information literacy	Themes in the definitions
Tarik		✓	Null
Hülya	X		Null
Derya		✓	Access to information
Hakan		✓	Evaluation of information
Melis	X		Null
Gülşen		✓	Access to information, Use of information
Fatih		✓	Access to information
Doğukan		✓	Evaluation of information, Use of information
Semiha		✓	Access to information
Neslihan		✓	Null
Melisa	X		Null
Kardelen		✓	Null
Meryem		✓	Use of Information
Berrin		✓	Null
Ayşe	X		Null
Furkan	X		Null
Sena		✓	Access to information, Evaluation of information
Cem		✓	Access to information
Belgin		✓	Access to information, Use of information
Metin		✓	Access to information, Evaluation of information

APPENDIX 11: OPINIONS OF PARTICIPANTS ABOUT THE RELATIONSHIP BETWEEN INFORMATION LITERACY AND PROFESSIONAL DEVELOPMENT

Participants	A relationship exists	No relationship exists	Themes
Tarık	✓		Update of professional knowledge
Hülya	✓		Update of professional knowledge
Derya	✓		Time management
Hakan	✓		Update of professional knowledge
Melis	✓		Update of professional knowledge
Gülşen	✓		Access to education materials and events, Improvement of professional competence
Fatih	✓		Update of professional knowledge
Doğukan	✓		Update of professional knowledge
Semiha	✓		Improvement of professional competence
Neslihan	✓		Update of professional knowledge
Melisa	✓		Update of professional knowledge
Kardelen	✓		Improvement of professional competence
Meryem	✓		Update of professional knowledge
Berrin	✓		Improvement of professional competence
Ayşe	✓		Update of professional knowledge, Improvement of professional competence
Furkan	✓		Update of professional knowledge
Sena	✓		Update of professional knowledge, Improvement of professional competence
Cem	✓		Null
Belgin	✓		Improvement of professional competence
Metin	✓		Access to education materials and events, Update of professional knowledge

APPENDIX 12: OPINIONS OF PARTICIPANTS ABOUT THE RELATIONSHIP BETWEEN IL AND THE WAY THEY TEACH THE LANGUAGE IN CLASSROOM

Participants	A relationship exists	No relationship exists	Themes
Tarık	✓		Integration of information into lesson
Hülya	✓		Preparation of lesson plans
Derya	✓		Null
Hakan	✓		Integration of information into lesson
Melis		X	Null
Gülşen	✓		Preparation of lesson plans
Fatih	✓		Improvement of communication between teacher and student
Doğukan	✓		Improvement of communication between teacher and student
Semiha	✓		Integration of information into lesson, Preparation of lesson plans
Neslihan		X	Null
Melisa	✓		Null
Kardelen	✓		Preparation of lesson plans
Meryem	✓		Integration of information into lesson
Berrin	✓		Integration of information into lesson
Ayşe	✓		Integration of information into lesson
Furkan	✓		Integration of information into lesson
Sena	✓		Improvement of communication between teacher and student, Integration of information into lesson
Cem	✓		Improvement of communication between teacher and student, Integration of information into lesson
Belgin	✓		Integration of information into lesson
Metin	✓		Integration of information into lesson