DERYA ILGIN YAŞAR

AN INVESTIGATION OF THE RELATIONSHIP BETWEEN EFL INSTRUCTORS' PERCEPTIONS ON TECHNOLOGY USE AND THEIR POSSIBLE LANGUAGE TEACHER SELVES

A MASTER'S THESIS

BY

DERYA ILGIN YAŞAR

TEACHING ENGLISH AS A FOREIGN LANGUAGE

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To my children, Ece and Deniz…

An Investigation of the Relationship between EFL Instructors' Perceptions on Technology Use and Their Possible Language Teacher Selves

The Graduate School of Education

of

İhsan Doğramacı Bilkent University

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Derya Ilgın Yaşar

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Thesis Title: An Investigation of the Relationship between EFL Instructors' Perceptions on Technology Use and Their Possible Language Teacher Selves

Derya Ilgın Yaşar

May 2020

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Asst. Prof. Dr. Hilal Peker (Supervisor)

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Assoc. Prof. Dr. Erdat Çataloğlu (Examining Committee Member)

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Prof. Dr. İsmail Hakkı Mirici, Hacettepe University (Examining Committee Member)

Approval of the Graduate School of Education

Prof. Dr. Alipaşa Ayas (Director)

ABSTRACT

AN INVESTIGATION OF THE RELATIONSHIP BETWEEN EFL INSTRUCTORS' PERCEPTIONS ON TECHNOLOGY USE AND THEIR POSSIBLE LANGUAGE TEACHER SELVES

Derya Ilgın Yaşar

M.A. in Teaching English as a Foreign Language

Supervisor: Asst. Prof. Dr. Hilal Peker

June 2020

The aim of this non-experimental quantitative study was to investigate whether there was a relationship between EFL instructors' perceptions on technology use and their possible language teacher selves (PLTS). It also aimed to find out if there were differences among instructor groups based on their professional qualifications, highest degree earned, and teaching experience regarding their perceptions on technology use and PLTS. The participants were 134 EFL instructors teaching at a public university in Ankara. Survey items related to perceptions on technology use were taken and adapted from Venkatesh, Morris, Morris, and Davis (2003). The items about the PLTS, however, were developed by the researcher. For data analysis, descriptive as well as inferential statistics were utilized. The results revealed that professional qualifications, degrees, and teaching experience affected instructors' perceptions on technology use and their PLTS. Also, a positive relationship between the EFL instructors' ILTTS and their perceptions on technology use, especially when they had professional qualifications or degrees was found. Therefore, EFL instructors should be supported to pursue further academic careers, and in-service training programs, workshops, and best-practice sessions should be organized. To generalize the findings, further research is necessary.

Key words: Technology use, possible language teacher selves, UTAUT

ÖZET

İngilizceyi Yabancı Dil Olarak Öğreten Öğretim Görevlilerinin Teknoloji Kullanım Algıları ile Olası Dil Öğretmeni Benlikleri Arasındaki İlişki Üzerine Bir Araştırma

Derya Ilgın Yaşar

Yüksek Lisans, Yabancı Dil Olarak İngilizce Öğretimi
Tez Yöneticisi: Dr. Öğr. Üyesi Hilal Peker

Haziran 2020

Bu deneysel olmayan ve nicel çalışma, İngilizceyi yabancı dil olarak öğreten öğretim görevlilerinin teknoloji kullanımı algıları ile olası dil öğretmeni benlikleri arasında bir ilişki olup olmadığını araştırmayı hedeflemektedir. Bir diğer amacı ise, bu algılarında profesyonel niteliklerine, akademik derecelerine ve meslek deneyimlerine göre aralarında bir fark olup olmadığını araştırmaktır. Katılımcılar, Türkiye'deki bir devlet üniversitesinde ders veren 134 öğretim görevlisidir. Uygulanan anketin teknoloji kullanımı algısı maddeleri Venkatesh, Morris, Morris ve Davis (2003)'den uyarlanmıştır. Olası dil öğretmeni benlikleri maddeleri ise araştırmacı tarafından yazılmıştır. Veri analizinde betimsel ve çıkarımsal istatistikten faydalanılmıştır. Sonuçlar, profesyonel niteliklerin, akademik derecelerin ve mesleki deneyimlerin, öğretim görevlilerinin teknoloji kullanımı ve olası dil öğretmeni benliklerini algılarını etkilediğini ve ideal dil öğretmeni benlikleri ile teknoloji kullanımı arasında olumlu bir ilişki olduğunu göstermiştir. Bu nedenle, öğretim görevlilerinin akademik kariyerlerini sürdürmeleri desteklenmeli, hizmet içi eğitim programları, çalıştaylar ve iyi giden uygulamaların paylaşıldığı oturumlar düzenlenmelidir. Sonuçları genelleyebilmek için, daha fazla çalışmanın yapılmasına ihtiyaç vardır.

Anahtar kelimeler: Teknoloji kullanımı, olası dil öğretmeni benlikleri, UTAUT

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LIST OF ABBREVIATIONS

TRA: The Theory of Reasoned Action

TPB: The Theory of Planned Behaviour

TAM: The Technology Acceptance Model

UTAUT: The Unified Theory of Acceptance and Use of Technology

ILTTS: Ideal language teacher technology selves

FLTTS: Feared language teacher technology selves

OLTTS: Ought-to language teacher technology selves

CHAPTER 1: INTRODUCTION

Introduction

Technology has become an indispensable part of everyday life in the 21st century, and it offers countless benefits in many areas of life. One of these areas is language teaching. Among the benefits it offers to language teaching are being able to access information in an effective and efficient way, providing opportunities for student-centred as well as self-directed learning, producing a creative and a collaborative learning environment, contributing to students' critical thinking skills, improving the quality of not only teaching but also learning, and supporting teaching activities through access to course material (Fu, 2013).

Despite the benefits it offers, however, integrating technology into classrooms is regarded by some teachers as an insurmountable task to accomplish. In order to understand the reasons why using technology is regarded as a challenge and what constitutes the barriers that prevent teachers' technology integration, a number of studies have been carried out (e.g., Bingimlas, 2009; Goktas, Yildirim, & Yildirim, 2009; Hsu, 2016). More specifically, Bingimlas (2009) categorized these barriers under two headings: teacher-level barriers (i.e., lack of confidence and competence, being resistant to change, and having a negative approach) and school-level barriers (i.e., lack of time, effective training, accessibility, and technical support). Still, so as to fully understand why some teachers refrain from incorporating technology into their classrooms, gaining an understanding of their current perceptions and their possible selves or future selves with regard to technology use is crucial.

Possible selves, a term coined by Markus and Nurius (1986), are representations of a person's ideas of what they could become, what they want to become, and what they are afraid of becoming. Cross and Markus (1991) consider possible selves as the blueprints for personal change and growth throughout one's life, and they think that possible selves enable an individual to adapt new roles. In addition, possible selves function as standards when an individual compares and evaluates the current self and comes up with the idea that they could become what others are now (Markus & Nurius, 1986).

Regarding teachers' technology use, a teacher might want to use technology upon observing a colleague who uses it and receives positive feedback from his or her students, thinking that he or she might also become like him or her. On the other hand, the opposite might be possible, and upon seeing a colleague who has difficulty adopting technology, a teacher might refrain from using it in order to avoid experiencing what his or her colleague has experienced. In this case, while positive possible selves liberate the teacher by giving him or her the hope that the present self is not immutable, the negative possible selves imprison him or her by hindering efforts for change or development (Markus & Nurius, 1986).

In the light of this information, then, by gaining an understanding of teachers' possible selves with regard to technology use, it might be possible for institutions to understand the underlying factors that prevent teachers from embracing technology and to adopt the necessary changes so that the necessary conditions for its integration are created.

Background of the Study

The theory of possible selves was formulated by Markus and Nurius (1986), who consider possible selves to be of great significance due to their role as incentives

for future behavior as well as due to providing a context which makes it possible to evaluate and interpret the current self. They enable "an articulation of how specific self-concepts arise, and these self-concepts influence behaviours in the present that are aimed at self-relevant outcomes in the future" (Hamman, Wang, & Burley, 2013, p. 222). Rodgers and Scott (as cited in Hamman et al., 2013) suggested that understanding teacher's identity and their self-concept contributes to gaining an insight into issues related to teacher's development in many ways. As a result, teachers' identity and their sense of self have become topics of interest for many educators in recent years (e.g., Hiver, 2013; Kubanyiova, 2009; Pennington & Richards, 2016).

Gaining an insight into the types of possible selves that teachers adopt and thus their various incentives can be critical for understanding teacher change. However, Kubanyiova (2007) mentions that even though teachers' thoughts, knowledge, and beliefs have been mainly investigated in the area of language teacher cognition research, their goals as well as their fears concerning the future have not been explored much. She theorizes *Language Teacher Possible Self* as the future aspect of teachers' cognition. She defines *Ideal Language Teacher Self* as the teacher's language teaching identity aims and hopes and the driving force that motivates the teacher to resolve the discrepancy between her actual and ideal teaching self. By contrast, *Ought-to Language Teacher Self* represents the responsibilities and obligations of the teachers with respect to their work. Kubanyiova (2007) defines *Feared Language Teacher Self* as the negative outcomes envisioned by the teacher. She further claims that the reasons why some teachers adapt themselves to changes while others remain the same can be understood by making use of the construct of Language Teacher Possible Self.

One area that requires teachers to adopt new methods and techniques as well as to improve themselves is related to using technology. Recently, using technology in the classroom has gained greater importance not only because it can contribute to making the teaching and learning processes better, but also because it offers teachers opportunities for innovative ways in terms of content, methods, and pedagogy (Bottino, 2014). Moreover, it increases access to information, inspires new developments, and it allows interaction between individuals and communities at any time (Vrasidas & Glass, 2007). However, there a number of factors that prevent teachers' technology integration in their classes, and these might be related to teachers' perceptions regarding technology use or to their possible selves. By gaining an insight into teachers' perceptions and possible language teacher selves regarding technology use, the underlying factors inhibiting the integration of technology into language teaching can be understood, and the necessary changes that may help teachers welcome technology into their classes can be made.

Statement of the Problem

Studying teachers' perceptions on technology use is not new, and various studies that have examined teachers' perceptions and the barriers or challenges that accompany them have been conducted (e.g., Bingimlas, 2009; Goktas, Yildirim, & Yildirim, 2009; Hsu, 2016). Similarly, the theory of possible selves, which inspired Dörnyei (as cited in Karimi & Norouzi, 2019) to propose L2 Motivational Self System to explain the relationship between students' identities and their motivational experiences, has also been investigated with regard to students' motivation in language use (e.g., Erdil, 2016; Peker, 2016). Moreover, L2 Motivational Self System has been adopted by teacher education researchers in order to understand teachers' professional identities (e.g., Hiver, 2013; Kubanyiova, 2007). To the

knowledge of the researcher, however, there are no studies examining the relationship between teachers' perceptions and possible language teacher selves regarding technology use. The aim of this study is to better understand the teachers' perceptions and possible language teacher selves and their technology use so as to comprehend what facilitates or prevents them from incorporating technology into their classes. With the help of this insight, teachers, teacher educators, and administrators may adopt the necessary changes so that institutions can keep up with the innovations in the 21st century.

Research Questions

This study mainly aims to find out if there is a relationship between the perceptions and possible language teacher selves of EFL instructors who teach at a state university in Turkey and their integration of technology. To this end, the study aims to:

- investigate the EFL instructors' perceptions concerning their technology use in their classrooms,
- look into the possible language teacher selves of the EFL instructors in the use of technology,
- find out whether there are differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) regarding their perceptions and possible language teacher selves in using technology.

This current study will address the following questions:

1. Are there any statistically significant differences between the EFL instructors who have professional qualifications and those who do not have any professional qualifications regarding their perceptions on:

a. performance expectancy
b. effort expectancy
c. attitude towards using technology
d. social influence
e. facilitating conditions
f. self-efficacy
g. anxiety
h. behavioural intention to use technology?

2. Are there any statistically significant differences between the EFL instructors who hold BA degrees and those who hold MA or PhD degrees regarding their perceptions on:
    a. performance expectancy
    b. effort expectancy
    c. attitude towards using technology
    d. social influence
    e. facilitating conditions
    f. self-efficacy
    g. anxiety
    h. behavioural intention to use technology?
3. Are there any statistically significant differences among the groups of EFL instructors with different years of teaching experience regarding their perceptions on:
    a. performance expectancy
    b. effort expectancy
    c. attitude towards using technology

   d. social influence
   e. facilitating conditions
   f. self-efficacy
   g. anxiety
   h. behavioural intention to use technology?

4. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their ILTTS?
5. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their FLTTS?
6. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their OLTTS?
7. Is there any statistically significant relationship between EFL instructors' perceptions on technology use and their ILTTS, FLTTS, and OLTTS in the use of technology in the classroom?

Significance

This study has three significant contributions. First, it provides empirical data in an area that has not been studied before: the relationship between EFL instructors' perceptions on technology use and their possible language teacher selves. Second, this study may help administrators better understand instructors' perceptions into technology use by providing information on the instructors' performance expectancy, effort expectancy, attitude toward using technology, social influence, facilitating conditions, self-efficacy, anxiety, and behavioural intention to use technology. The

administrators may create an environment that is conducive to technology integration by helping the instructors to overcome possible barriers. Finally, this study may contribute to teacher education programs. Since this study seeks to gain insight into language instructors' possible language teacher selves with regard to technology use, it will shed light on the factors behind instructors' technology use. It will provide information on whether instructors use technology considering their ideal, ought-to, or feared language teacher selves. With the help of this understanding, teacher trainers may focus on the factors that shape instructors' ideas on technology use and modify their teacher training programs accordingly.

Definition of Key Terms

Integration of technology: Using computers, tablets or smart phones to utilize various programs such as PowerPoint, websites such as Ted Talks, or Web 2.0 tools such as Kahoot! while teaching English in the classroom.

Possible selves: Possible selves are representations of a person's ideas of what they might become, what they would like to become, and what they are afraid of becoming (Markus & Nurius,1986).

Ideal self: The representation of features that a person would ideally like to have (Dörnyei & Ushioda, 2011).

Ought-to self: The representation of features that a person thinks he or she needs to have (Dörnyei & Ushioda, 2011).

Feared self: The representation of negative results of not being able to achieve the desirable state (Dörnyei & Ushioda, 2011)

Language teacher possible selves: Language Teacher Possible Selves are "language teachers' cognitive representations of their ideal, ought-to, and feared selves in relation to their work as language teachers" (Kubanyiova, 2009, p. 315).

Ideal language teacher self: It can be defined as the self that a teacher ideally wants to become, and his/her goals and aspirations are the driving force to become her ideal teaching self (Kubanyiova, 2009).

Ought-to language teacher self: It can be defined as the self that a teacher believes he/she ought to become due to his/her responsibilities or obligations in relation to his/her work (Kubanyiova, 2009).

Feared language teacher self: It can be defined as the self which a teacher might become if he or she does not meet the ideals or fulfil the responsibilities (Kubanyiova, 2009).

Ideal language teacher technology self: It refers to the self that a teacher conceptualizes and ideally wants to become due to his/her technology integration knowledge and skills.

Feared language teacher technology self: It refers to the self that a teacher wants to avoid becoming due to his/her lack of technology integration knowledge and skills.

Ought-to language teacher technology self: It refers to the self that a teacher thinks that he/she ought to become; a teacher who has technology integration knowledge as well as skills and who uses this knowledge and skills due to external factors, such as administrators or colleagues.

Professional qualifications: Having professional qualifications refers to obtaining ELT-related certificates or diplomas, such as In-Service Certificate in English Language Teaching (ICELT), Certificate in English Language Teaching to Adults (CELTA) or Diploma in Teaching English to Speakers of Other Languages (DELTA).

Conclusion

In this chapter, a brief overview of the literature on technology use has been provided by mentioning its benefits and barriers in addition to the theory of possible selves in relation to instructor's possible selves. Moreover, the background of the study, the statement of the problem, research questions, the significance of the study, and definition of key terms have been presented. In the following chapter, a review of the relevant literature on the use of technology and the theory of possible language teacher selves will be presented in detail.

CHAPTER 2: REVIEW OF LITERATURE

Introduction

In this chapter, a review of literature on technology use in teaching is presented, and then the benefits of and barriers to integrating technology into teaching English as a Foreign Language (EFL) are discussed. Next, the relationship between teachers' use of technology and their perceptions on it with reference to previous studies that have been conducted is discussed. Then, user acceptance models are explained. Finally, literature regarding language teacher's possible selves and the relationship between their possible selves and technology use is presented.

Technology Integration in Teaching

In the 21st century, professionals think and behave in different ways compared to the professionals of previous centuries thanks to the radically different tools available for them to do their jobs (Ertmer & Ottenbreit-Leftwich, 2010). To do their jobs effectively and efficiently, various professionals are expected to have the latest information available, but the same expectation does not apply to teachers at all (Ertmer & Ottenbreit-Leftwich, 2010). Timucin (2009) states that teachers have different perceptions related to the change that is caused by technology, and the way teachers view technology integration has a great impact on its successful implementation. Therefore, it is necessary to create a change teachers' mindsets and to assume that technology is essential for student learning just like in other professions considering the various benefits that it offers (Ertmer & Ottenbreit-Leftwich, 2010).

The Benefits of Integrating Technology into Teaching English as a Foreign Language

Integrating technology into teaching English as a foreign language offers countless benefits. It increases student motivation by enabling teachers to provide opportunities for the authentic use of language with a real communicative purpose (Chamorro & Rey, 2013). It also allows both student-centered and self-directed learning by providing access to digital information as well as course content efficiently and effectively (Fu, 2013). Moreover, it offers a creative and a collaborative classroom environment in which teachers can foster their students' creative thinking skills (Fu, 2013). According to Chamarro and Rey (2013), teachers who integrate technology into their classes expose their students to the social aspect of using language with real speakers and give them the responsibility of shaping their own language learning process. Therefore, Chamarro and Rey (2013) believe that technology fully supports language acquisition and learning, and when it is used properly, it contributes to making classes more engaging and attractive to students.

The benefits of technology integration do not end here. Through technology integration, teachers can use various resources including pictures and videos in order to improve their students' skills in reading and computer use (Izadpanah & Alavi, 2016). Last but not least, by assigning intercultural projects that require the use of technology, teachers can contribute to their students' intercultural communicative competence and help them to learn about the use and culture of not only the varieties of English but also their own culture (Chen & Yang, 2014). In order to help students develop 21st century skills, it has become crucial to consider the contributions of technology in this respect as well. Still, despite the benefits technology integration

offers, there are a variety of factors that prevent teachers from incorporating technology into their classes.

The Barriers to Integrating Technology into Teaching English as a Foreign Language

Identifying the possible barriers inhibiting teachers' use of technology in the classroom is an essential step so as to improve teaching and learning quality (Ghavifekr, Kunjappan, Ramasamy, & Anthony, 2016). Although teachers may be committed to incorporating technology into their lessons, they may consider it challenging as a result of the barriers that exist (Keengwe, Onchwari, & Wachira, 2008). As suggested by Bingimlas (2009), various categories have been established by researchers to classify the barriers that teachers face with regard to using technology in their classrooms.

Ertmer (1999) divided these barriers into two categories as first-order and second-order. First-order barriers include lack of equipment, unreliability of equipment, or problems with technical support (Snoeyinck & Ertmer, 2001), and they are incremental and institutional (Ertmer, 1999). A lack of time is also one of the most widespread first-order barriers (Ertmer, 1999). On the other hand, teachers' beliefs about teaching or technology, the culture of the organization, instructional models, and resistance to change are considered second-order barriers, and they are all fundamental or personal barriers (Snoeyinck & Ertmer, 2001). According to (Ertmer, 1999), another commonly observed second-order barrier is that teachers may not feel that themselves ready for integrating technology into their teaching. She asserts that teachers often lack the skills to infuse technology into their teaching even when they obtain the necessary skills to use computers for practice purposes or for

students' leisure time. In addition, not being successful while using technology, the increasing demands on teachers, and anxiety are among the second-order barriers.

Another classification is dividing the barriers into three under the categories of resource-related obstacles, institutional obstacles, and attitudinal obstacles (Mirzajani, Mahmud, Ahmad, & Luan, 2015). Resource-related obstacles include inadequate resources or lack of training, knowledge, skills, and leadership, whereas institutional obstacles are related to time, rewards or incentives, and commitment. Attitudinal obstacles, on the other hand, involve being afraid that things might go wrong, resisting to change, and having negative attitudes and beliefs about one's competence regarding technology use.

Still another classification of the barriers is teacher-level barriers and school-level barriers (Bingimlas, 2009). Some of the examples to teacher-level barriers are lack of confidence and competence as well as resistance to change and negative attitudes. School level barriers, however, involve lack of time, effective training, accessibility, and technical support.

Gaining an understanding into these barriers may help administrators, teachers, and teacher trainers to gain an insight into the teachers' perceptions with regard to the use of technology in their classes. In this way, they can decide on a route to take to help teachers overcome these barriers and to successfully integrate technology into their teaching.

EFL Teachers' Perceptions on the Use of Technology

In Turkey, there are many higher education institutions that consider keeping up with the innovations important, and as the use of technology is one of the indications of it, institutions equip their classes with the state-of-the-art technology

that they think will enable them to keep up to date. However, the truth is far from what they had hoped to achieve.

As Timucin (2009) asserts, in their efforts to offer high quality education including the use of technology in related programs, many higher education institutions simply bought the necessary equipment and the software. In order to assess the current situation at tertiary-level English language provision at 38 universities in 15 cities in Turkey, The British Council conducted a baseline study in 2015, and released a report titled as *The State of English in Higher Education in Turkey*. A close look at the sections related with instructors' use of technology might shed light on understanding instructor's use of technology at universities in Turkey. The report showed that despite being equipped with sufficient levels of technology, its use was somewhat ineffective. While in 20% of the observed classes there was good and original use of technology, in 14% of the classes there was none. Moreover, it was observed that 73% of the observed lessons included the use of technology following publishers' interactive white board materials, which is an indication of over-dependence on textbooks limiting opportunities to use technology. It also indicates that teachers opt to use ready-made materials.

As McGrail (2005) claims, the positive goals intended to be achieved cannot be accomplished by making computers available in classes; computers constitute just one element of a complicated situation in educational change, in which teachers play a key role. In the same vein, Fulkerth (1992) asserts that the opinions and actions of the people who are impacted by an innovation are the most essential part of a change process in comparison with the innovation itself. Therefore, the successful use of technology does not occur simply by equipping the classes with technology and the

necessary software, and its successful implementation mainly relies on the teachers' perceptions of its use (Timucin, 2009).

As the way teachers perceive the use of technology is a crucial factor that determines whether they will embrace it or not, gaining an understanding into their perceptions is crucial. To this end, user acceptance models that were developed in the 1970s and have been tested and extended since then will provide the necessary tools to understand users' perception on technology, their intention to adopt it, and the factors or conditions that facilitate its use (Legris, Ingham, & Collerette, 2003).

User Acceptance Models

In any educational setting, the most important key player in effectively integrating technology is the teacher, who is expected to use it in various situations (Teo, 2011). However, the teachers' willingness determines the extent to which it will be employed in a classroom, and the need to understand teachers' intention to employ technology brought about the development of various theories and models. These theories and models are the Theory of Reasoned Action (TRA), the Theory of Planned Behavior (TPB), the Technology Acceptance Model (TAM) (Davis, 1989), Motivational Model, Combined TAM and TPB, model of PC Utilization, Innovation Diffusion Theory, Social Cognitive Theory, and Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh, Morris, Davis, & Davis, 2003).

The Theory of Reasoned Action

Fishbein and Azjen formulated the theory of reasoned action (TRA) in 1975 so that they could explain the relationship between attitude and behaviour. According to this theory, "the immediate antecedent of any behaviour is the *intention* to perform the behaviour in question. The stronger a person's intention, the more the person is

expected to try, and hence the greater the likelihood that the behaviour will actually be performed" (Azjen & Madden, 1986, p. 454).

This theory specifies two determinants of action: *attitude toward the behaviour* and *subjective norm* (Azjen & Madden, 1986). *Attitude toward the behaviour* is a personal factor and is defined as how much a person considers the behaviour in a favourable or unfavourable way. On the other hand, *subjective norm*, which is a social factor, refers to the social pressure that is perceived by a person to exhibit or not to exhibit the behaviour (Azjen & Madden, 1986).

While *behavioural beliefs* affect attitudes towards the behaviour and *normative beliefs* account for the underlying determinants of subjective norms (Azjen & Madden, 1986). Each of these beliefs links the behaviour to a result, and the subjective value of the result facilitates the attitude towards the behaviour in direct proportion to the strength of the belief (Azjen & Madden, 1986).

The Theory of Planned Behavior

The TRA model was restricted to behaviours which people had volitional control over, but this caused severe limitations related to predicting and understanding behaviours over which they had limited volitional control (Azjen, 2012). Therefore, Azjen expanded the TRA model in 1985 by considering the amount of control on the behaviour, and proposed the Theory of Planned Behaviour (TPB). This led to the integration of *perceived behavioural control* as a supplementary predictor of intentions and behaviour (Azjen, 2012).

Perceived behavioural control is how easy or difficult a person believes a task is likely to be (Azjen & Madden, 1986). When individuals think that they have more resources and opportunities and expect to meet fewer barriers, their perceived behaviour of control is greater (Azjen & Madden, 1986). The perceived behavioural

control is affected by beliefs about resources and opportunities, which may result from the individual's past experience with the behaviour as well as second-hand information obtained from friends or other factors that may cause an increase or decrease in the perceived effort to exhibit the behaviour (Azjen & Madden, 1986). Perceived behavioural control is equal to Bandura's concept of perceived self-efficacy (Azjen, 2012).

The Technology Acceptance Model

The aim of the Technology Acceptance Model (TAM) is to develop a better measure to predict and explore use (Davis, 1989). In this model, there are two fundamental determinants of use: *perceived usefulness* and *perceived ease of use*. According to Davis (1989), *perceived usefulness* is how much a person thinks that a particular system would improve his or her job-related performance. On the other hand, *perceived ease of use* refers to how much a person thinks that employing a certain system would be effortless. Davis (1989) claims that when an application is considered to be easier to use than another, the possibility that it will be welcomed by the users increases.

The Motivational Model

The motivational Model was applied to new technology adoption and use by Davis, Bagozzi, and Warshaw (1992), and there are two main constructs in this model: *extrinsic* and *intrinsic motivation*. Davis et al. (1992) define *extrinsic motivation* as performing an activity due to considering it effective in attaining desirable results that are not the same as the activity itself. Improvements in job-related performance, monetary gains, or career advancement are some of the examples of these valued results. In contrast, they define *intrinsic motivation* as engaging in an activity for the activity itself, not for an apparent reinforcement.

According to Davis et al. (1992), "perceived usefulness is an example of extrinsic motivation, whereas enjoyment is an example of intrinsic motivation" (p. 1112).

Combined TAM and TPB

The social factors and personal control factors, which are key determinants of behaviour, were left out in TAM (Taylor & Todd, 1995). In TPB, *social influences*, or subjective norms, "are modelled as determinants of behavioural intention" (Taylor & Todd, 1995, p. 562). On the other hand, *personal behavioural control*, "is modelled as a determinant of both intention and behaviour (Taylor & Todd, 1995, p. 562). Therefore, they were added to TAM in order to better predict technology acceptance and use by Taylor and Todd (1995). They labelled this model augmented TAM, but Venkatesh et al. (2003) refer to it as Combined TAM and TPB.

The Model of Personal Computer Utilization

The model of personal computer utilization is adapted from the model proposed by Triandis in 1980, and it was applied to the context of personal computer use by Thompson, Higgins, and Howell (1991). This model tried to forecast usage behaviour instead of intention, and its core constructs are social factors, affect toward use, perceived consequences (job-fit, complexity, long-term consequences), and facilitating conditions (Venkatesh et al., 2003). Below are the definitions of the key constructs defined by Triandis (as cited in Thompson et al., 1991).

Social factors are defined as "the individual's internalization of the reference groups' subjective culture, and specific interpersonal agreements that the individual has made with others, in specific social situations" (Thompson et al., 1991, p. 126).

Affect toward use can be defined as positive feelings, such as happiness or pleasure or negative feelings, such as hate or displeasure related to a particular behaviour. *Perceived consequences*, as defined by Thompson et al. (1991), have

three dimensions, namely *job-fit, complexity*, and *long-term consequences*. While j*ob-fit* is how much an individual considers that the use of a personal computer can contribute to his or her job-related performance, c*omplexity* refers to how much an innovation is viewed as hard to understand and utilize. *Long-term consequences* are the advantageous outcomes in the future, including the likelihood of considering changing jobs, and f*acilitating conditions* are objective factors in the surrounding agreed upon by the several judges or observers to make it easier to perform an act.

Innovation Diffusion Theory

Rogers (1983) defines *innovation* as an idea, practice, or object considered novel by individuals or another unit of adoption. On the other hand, he defines *diffusion* "as the process by which an innovation is communicated through certain channels over time among the members of a social system" (p. 10). He views diffusion as a special kind of communication which involves messages related with a new idea. He also considers diffusion a type of social change which is brought about by the alteration in the structure and function of a social system as a result of the invention, diffusion, and adoption or rejection of new ideas. According to Rogers (1983), the four main elements in the diffusion of innovations are innovation, communication channels, time, and the social system.

In order to explain different rates of adoption, Rogers (1983) identifies five features of innovations as perceived by individuals. These are *relative advantage*, *compatibility*, *complexity*, *trialability*, and *observability*. *Relative advantage* refers to how much an innovation is considered to be better when compared to the idea that came before it, and if the perceived relative advantage of an innovation is high, this results in a rapid rate of adoption (Rogers, 1983). *Compatibility* is how much an innovation is considered to be compatible with the prospective adopter's current

values, previous experiences, and needs. Unless an idea is consistent with the social values and norms of a system, it is unlikely to be accepted as quickly as a compatible innovation. *Complexity*, as Rogers (1983) puts it, is how much an innovation is considered hard to comprehend and utilize. When an innovation is simpler to understand, it will be adopted more quickly compared to a new idea that necessitates the development of new skills. *Trialability* is defined as "the degree to which an innovation may be experimented with on a limited basis" (Rogers, 1983, p. 15). When an innovation is trialable, this means less uncertainty for the adopters as they can learn it by doing (Rogers, 1983). *Observability* is how much the outcomes of an innovation can be seen by others (Rogers, 1983). Therefore, when the results of an innovation are easier to observe, it is more probable that it will be adopted (Rogers, 1983). Rogers (1983) believes that when innovations have more advantage, compatibility, trialability, observability, yet less complexity, this will result in their being adopted more quickly compared to other innovations.

Social Cognitive Theory

According to Bandura (2018), social cognitive theory has an agentic perspective. He defines agency as the acts that are carried out intentionally (Bandura, 2001). Bandura (2002) asserts that people make choices as well as motivate and regulate their behaviour based on their belief systems. He thinks that belief systems are central to human agency because people will not have the motivation to act or to persist in the face of hardships if they do not believe in being able to produce desired outcomes or prevent the unwanted results by their actions.

Personal goals and ambitions, which are determined by efficacy beliefs, motivates a person and guides them for action (Bandura, 2002). He asserts that efficacy beliefs affect the results people hope to achieve as a result of their efforts,

and those who have high efficacy anticipate favourable results, whereas those with low efficacy expect poor results. The four main sources of efficacy beliefs are *mastery experiences, vicarious experiences, social persuasion* and *physiological and emotional states* (Bandura, 1999).

When a person is successful, this increases their efficacy; however, failures undermine it. This situation can be defined as *a mastery experience,* which contributes most to having a strong sense of efficacy. On the other hand, when a person sees that someone like them is successful, this contributes to their belief that they can also be successful. This situation can be defined as a *vicarious experience.* When people are convinced verbally that they have the capabilities, they tend to make greater effort and maintain it compared to if they had doubts about themselves This is referred to as *social persuasion.* Finally, *physiological and emotional states* partly influence the way people judge their capabilities. Physiological indicators of self-efficacy have an important part in health functioning and in activities that necessitate physical strength and stamina, whereas affective states might have commonly generalized impacts on beliefs of personal efficacy. For example, individuals might interpret their tiredness or aches as indicators of physical weakness when they are involved in activities that require strength and stamina. On the other hand, while having positive mood increases their perceived self-efficacy, negative mood decreases it. Bandura (1999) concludes that efficacy beliefs can be changed by improving physical status, reducing stress and negative emotions, and interpreting bodily states correctly.

The Unified Theory of Acceptance and Use of Technology

In their efforts to formulate a unified model that integrates eight models on individual acceptance of information technology, Venkatesh et al. (2003) conducted

a detailed analysis of them and formulated the Unified Theory of Acceptance and Use of Technology (UTAUT). In their model, they identified direct determinants of user acceptance and usage behavior as *performance expectancy, effort expectancy, social influence*, and *facilitating conditions*. On the other hand, they considered *attitude toward using technology, self-efficacy*, and *anxiety* not to be direct determinants of intention. Experience, voluntariness, age, and gender were validated as integral features of this model. The research model of UTAUT is presented below in Figure 1.

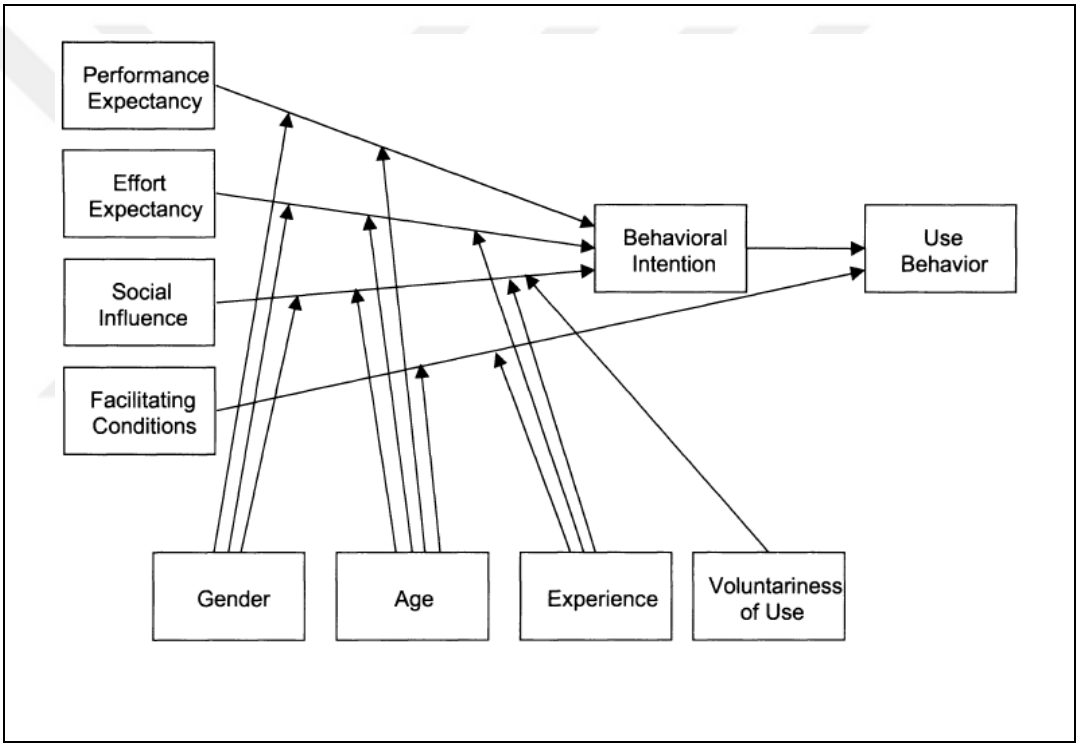

Figure 1. Research model of UTAUT. Adapted from "User Acceptance of Information Technology: Toward a Unified View" by V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, 2008, *MIS Quarterly*, 27(3), p. 447. Copyright 2003 by MIS Quarterly. Reprinted with permission.

Performance expectancy is defined as how much a person thinks that utilizing the system will contribute to his or her success in job-related performance and is viewed as the strongest predictor of intention in voluntary and mandatory

settings (Venkatesh et al., 2003). It is referred to as perceived usefulness in Davis' Technology Acceptance Model (1989), job fit in the Model of PC Utilization (Thompson et al., 1991), and result expectancies found in Social Cognitive Theory (Bandura, 1986).

Effort expectancy is the perception of the user concerning the ease of using the system, and its constructs are significant in contexts requiring technology integration both voluntarily and compulsorily (Venkatesh et al., 2003). In TAM, it is referred to as perceived ease of use (Davis, 1989), as complexity in the Model of PC Utilization (Thompson et al., 1991), and as ease of use in the Innovation Diffusion Theory (Rogers, 1995).

Social influence is how much a person is influenced by important others who are of the opinion that he or she needs to adopt the system, suggesting that how a person believes others will think about him or her due to his or her technology use affects this person's behavior (Venkatesh et al., p. 451). When a person uses technology voluntarily, its constructs are insignificant, but they become significant when there is mandatory use of it. Social influence can be found in TAM (Davis, 1989) and TPB (Azjen, 1991). It can also be found in the Model of PC Utilization, in which it is referred to as subjective norms (Thompson et al., 1991), and in the Innovation Diffusion Theory, in which it is referred to as an image (Rogers, 1995).

Facilitating conditions refer to how much a person thinks that there is sufficient infrastructure to assist the use of the system (Venkatesh et al., 2003), and its constructs include features of the setting that are intended to eliminate the obstacles that inhibit the person from using it. It is referred to as perceived behavioural control in TRA (Azjen, 2012), as facilitating conditions in the Model of

PC Utilization (Thompson et al., 1991), and as job fit in the in the Innovation Diffusion Theory (Rogers, 1995).

Venkatesh et al. (2003) theorized that *self-efficacy* and *anxiety* are not direct determinants of intention because they are different from effort expectancy (i.e., perceived ease of use) not only theoretically but empirically as well. As a result, Venkatesh et al. (2003) anticipated that self-efficacy and anxiety would behave in a similar manner that is different from effort expectancy, and it would not directly impact intention that is above effort expectancy.

Attitude toward using technology, as defined by Venkatesh et al. (2003), is the overall affective reaction of a person to using a system. Its constructs are related to how much a person likes, enjoys, and derives joy and enjoyment with regard to technology use.

Various studies have been conducted to contribute to the current understanding of teachers' acceptance of technology by using different technology adoption models. One such study was conducted Birch and Irvine (2009). They investigated the factors impacting preservice teachers' acceptance of information and communication technology (ICT) integration using the UTAUT model. Specifically, the researchers looked into whether the UTAUT variables (i.e., performance expectancy, effort expectancy, social influence, and facilitating conditions) affect preservice teachers' acceptance of ICT use and whether their gender, age, and voluntariness moderate performance expectancy, effort expectancy, social influence, and facilitating conditions. To this end, they utilized an embedded triangulation mixed-methods approach. While the researchers obtained information on the UTAUT variables through the quantitative data, the qualitative data enabled them to investigate whether there were any other issues other than the ones mentioned in the

UTAUT model that were influencing the teachers' acceptance of ICT integration. After implementing the survey to obtain quantitative data, the researchers conducted focus group interviews with a subsample of participants. According to the results, the researchers found that performance expectancy was significantly correlated with behavioural intention, but gender and age did not have a moderating impact on performance expectancy. They also found that effort expectancy had the highest correlation with behavioural intention, and it was found to be a significant predictor of behavioural intention; however, gender and age were not significant moderators. The results indicated that social influence had the lowest correlation with behavioural intention, and it was not moderated by age and gender. With respect to the facilitating conditions, the results showed that they correlated with behavioural intention. Voluntariness of use was not a significant moderator according to the results. With regard to behavioural intention construct, the researchers found that most of the participants intended to use ICT during their practicum teaching and that age was the only moderator variable, which indicated that there was a decrease in the participants' intention to utilize ICT as their age increased. The researchers concluded that as effort expectancy is an important predictor of behavioural intention to use ICT, it is necessary to determine how to increase effort expectancy through teacher education programs.

Furthermore, Teo's (2011) study utilized the TAM, TPB, and UTAUT in order to build a research model that had the following variables: perceived usefulness, perceived ease of use, subjective norm, facilitating conditions, and attitude towards use. His aim was to investigate the factors impacting teachers' intention to employ technology. To this end, he gathered data from 592 teachers in 31 schools in Singapore. He concluded that the model that he proposed is a good fit

to provide empirical support regarding participants' behavioural intention to use technology. The researcher found that perceived usefulness, attitude towards use and facilitating conditions directly affect behavioural intention to use technology, which is aligned with the relationship suggested in the TAM (Davis, 1989) and UTAUT (Venkatesh et al., 2003). However, in this study, perceived ease of use and subjective norm indirectly affected behavioural intention to use technology through attitude towards use and perceived usefulness, respectively. He concluded that positive feelings towards technology increased the teachers' willingness to use it. Moreover, perceived usefulness and perceived ease of use considerably affected the teachers' attitude towards use, and their impact was stronger than subjective norm. Also, teachers' facilitating conditions had more effect on their intention to use technology compared to subjective norm.

In another study, Pynoo, Devolder, Tondeur, van Braak, Duyck, and Duyck (2011) investigated secondary school teachers' acceptance of a digital learning environment (DLE) by using the UTAUT as its theoretical framework. The researchers applied questionnaires three times during the same school year to 72 teachers, and they collected user-logs to extract use behaviour in addition to the questionnaires. The results showed that performance expectancy and social influence by superordinates were the primary predictors of teachers' DLE acceptance, whereas effort expectancy and facilitating conditions had small impact. Moreover, while investigating the main predictors of final observed use during the school year, the study revealed that one third of the variance in the first test, one fourth of the variance in the second test, and half of the variance in the final test was predicted by attitude, behavioural intention and self-reported frequency of use. The researchers

concluded that demonstrating the usefulness of DLE and encouraging its use would contribute to maximizing its use.

Another study was conducted in Turkey to examine the technology acceptance level of instructors at a public university by using the UTAUT (Venkatesh et al., 2003) as a theoretical framework (Koral & Akay, 2017). In total, there were 44 instructors in the study, and the results of the study showed that the participants, most of whom believed that they had both the necessary knowledge and the resources to incorporate technology into their teaching, had above-average level of technology acceptance. However, most of the participants believed that they could not complete a task when there was no one around, which showed their lack of self-efficacy which might have resulted from lack of experience and training. With regard to performance expectancy, the researchers found that while the participants considered using technology useful, some of them had doubts about the fact that using technology made them accomplish tasks faster and that technology increased their productivity, which may have resulted from their lack of adequate knowledge or not being able to use it quickly. The same results were obtained with regard to effort expectancy: while a large number of the participants felt confident about technology integration, some had concerns related to becoming skilful at using and operating it, which could be owing to their lack of experience and practice in technology use. With regard to social influence, the results revealed that the participants adopted technology not because people they valued asked them to do so, but because they wanted to adopt it for their students and for themselves as part of their own professional development. Finally, based on the results of the study, the researchers concluded that most of the participants were not anxious, intimidated, or

terrified with the idea of doing something wrong as they used technology in their lessons.

Durak (2018) conducted a correlational study to examine preservice teachers' acceptance and use of social network sites for educational purposes within the framework of the UTAUT model. Specifically, the researcher focused on performance expectation, effort expectation, and social impact as factors that determine behaviour and intent in the acceptance and use of technology. The participants of the study were 274 preservice teachers in their first year at a public university in Turkey. Based on the findings of the study, the researcher concluded that social effect impacted these teachers' acceptance and use of social network sites for educational purposes most. Performance expectation and effort expectation were found to have a relative impact. Actual use was affected by behavioral intention to use these technologies. Academic self-efficacy, self-directed learning readiness, and motivation were found to impact all factors, and also the moderator of technological literacy significantly affected performance expectation only.

In another study conducted in the Turkish context, Emre (2019) investigated the perceptions of 78 instructors regarding their use of webinars in EFL teaching and for professional development purposes by utilizing a survey adapted from Venkatesh et al. (2003) and Gasket (2002). The survey had nine constructs (i.e., performance expectancy, effort expectancy, attitude towards using webinars, social influence, facilitating conditions, self-efficacy, anxiety, behavioural intention, and motivation). First, the researcher investigated whether the participants had used and attended webinars before or not, and the results revealed that 31 of the participants had experience with webinars, while 47 of them had no experience at all. Then, the researcher looked into whether there were statistically significant differences

between these two groups regarding effort expectancy, facilitating conditions, self-efficacy, anxiety, behavioural intention, and motivation to use webinars. The results indicated that there were statistically significant differences between these groups; therefore, the researcher concluded that having previous experience on the use of webinars beforehand might be a significant factor. Moreover, as the years of teaching experience increased, the instructors' motivation to use webinars was more likely to decrease. Similarly, as the age of the instructors increased, their self-efficacy in the use of webinars decreased. The results also revealed that native and non-native speakers differed with regard to their perceptions on the use of webinars with regard to facilitating conditions, self-efficacy, and anxiety. While there was a positive correlation between self-efficacy and facilitating conditions, there was a negative correlation between self-efficacy and anxiety and anxiety and facilitating conditions. With regard to performance expectancy, the researcher found that effort expectancy, attitude toward using webinars, social influence, facilitating conditions, self-efficacy, anxiety, behavioural intention, and motivation can predict performance expectancy. However, attitude toward using webinars was the greatest predictor among these variables.

In this study, the researcher employs the UTAUT model (Venkatesh et al., 2003), which combines eight of the technology models that are explained in the previous section. The reason for this is that the UTAUT is the most comprehensive model that has been developed so far with its integration of the previous models, and the constructs that this model makes use of, namely *performance expectancy, effort expectancy, social influence, facilitating conditions, attitude toward using technology, self-efficacy*, and *anxiety*, contribute best to the understanding of the

current situation with regard to technology use at the institution where this study is conducted.

Language Teacher's Possible Selves

Thanks to the possible selves theory formulated by Markus and Nurius in 1986, motivation research in various fields has gained invaluable insights as the theory conceptually linked self-concept and motivation (Kumazawa, 2013). As defined in the previous chapter, possible selves involve the ideal selves a person wants to become, the selves they could become, and the selves they are afraid of becoming (Markus & Nurius, 1986). Dörnyei (2009) believes that possible selves "act as 'future self-guides', reflecting a dynamic, forward-pointing conception that can explain how someone is moved from the present toward the future" (p. 11). More importantly, he believes that the possible selves approach can be applied in various educational settings due to its versatility, and one such setting is second language learning.

Dörnyei (2005) built on the possible selves theory to reformulate L2 learners' motivation, and he put forward the 'L2 Motivational Self System'. In this system, there are three main components which are *the Ideal L2 Self*, *the Ought-to L2 Self*, and *the L2 Learning Experience*. *The Ideal L2 Self* refers to the "L2-specific facet of one's ideal self" (Dörnyei, 2005, p. 105). In his further explanation of the concept, Dörnyei (2005) suggests that the Ideal L2 Self is a powerful motivator for a person who wants to become like someone who speaks L2 due to his or her desire to reduce the discrepancy between actual and ideal selves. The second component, which is *the Ought-to L2 Self*, refers to the qualities that one believes one needs to possess so that he or she can live up to expectations or avoid possible consequences. The final component of Dörnyei's L2 Motivational Self System is *the L2 Learning Experience*

which concerns “situation-specific motives related to the immediate learning environment and experience” (p. 106).

The study of possible selves was adopted by researchers in the field of teacher education (e.g., Hiver, 2013; Kubanyiova, 2009; Rahmati, Sadeghi, & Ghaderi, 2019), and among these researchers, Kubanyiova (2009) conceptualized language teachers’ possible selves as *Ideal Language Teacher Self, Ought-to Language Teacher Self*, and *Feared Language Teacher Self.*

Ideal Language Teacher Self involves language teachers’ goals and aspirations concerning their identity (i.e., the self which they ideally want to achieve) (Kubanyiova, 2009). As a result, it is assumed that teachers will have the motivation in order that they can reduce the discrepancy between their actual and ideal teaching selves (Kubanyiova, 2009). For example, a teacher imagines himself or herself as a teacher who makes use of technology in his or her classes to increase the efficiency of his/her lessons and to increase student motivation. In order to realize this, that is, to become a teacher who integrates technology into his or her lessons, this teacher will have the motivation to do so because this is the image that he or she wants to achieve.

On the other hand, Ought-to Language Teacher Self refers to the cognitive representations that the teachers have concerning their work-related duties and obligations, and these might include their colleagues’, parents’ or students’ expectations as well as the school regulations (Kubanyiova, 2009). As opposed to Ideal Language Teacher Self, the teachers’ efforts to reduce the discrepancy between actual and ought-to selves is motivated by extrinsic incentives, and the teacher’s vision of negative outcomes is considered to be the primary reason for motivation (Kubanyiova, 2009). To illustrate, a teacher might use technology in his or her

classes due to believing that this is what the administrators want him or her to do. Therefore, the motivation behind this teacher's technology use is other people's expectations of him or her.

The teachers' vision of negative consequences represents the third type of possible self, which is Feared Language Teacher Self (Kubanyiova, 2009). It refers to the person the teacher might become unless the ideals or perceived obligations and responsibilities are met. When teachers have 'balanced' possible selves, in other words, when their desired future states (ideal and/or ought-to) are accompanied by well-defined feared counterparts, self-regulatory efforts in order to reduce the actual-versus-possible selves discrepancy might increase (Dörnyei, 2005; Kubanyiova, 2007). To illustrate, a teacher wants to avoid becoming a teacher who is considered a traditional or outdated teacher. In order to avoid becoming such a teacher, this teacher will make use of technology so that he or she will not be considered as such, and this will be the driving force behind his or her integration of technology.

The first one of the studies conducted to explore the potential of possible selves for language teacher development was a longitudinal mixed methods study by Kubanyiova as part of her dissertation thesis in 2007. The participants were eight non-native teachers from Slovakia, and the study aimed to investigate the effect of a teacher development course on the participants' conceptual change (Kubanyiova, 2009). There were five phases of data collection which took around ten months, and each phase of data collection lasted about two weeks. In each phase, the researcher conducted five-hour sessions on teacher development (except for the fourth phase), and visited the participants to conduct classroom observations, informal conversations, and interviews. In addition, data provided by the non-participating informants, including students and head teachers, were also included in the dataset.

Kubanyiova (2009) found out that the interaction among the multiple identity goals that language teachers have in their educational and sociocultural settings as well as the dissonance between teachers' actual and desired future selves have vital roles in teacher conceptual change. The findings suggested that to find out why teachers developed (or not) after a teacher development course, looking into the relationship between the teacher development course content and the specific orientations of teachers' multiple possible selves was essential. In addition, the findings suggested that the success of a teacher development course depended on the extent it incorporated its basic premise into the teachers' relevant possible teaching selves.

Another study was conducted by Hiver (2013) so as to examine the roles of possible language teacher selves in the teacher development preferences of seven Korean English teachers. To collect data for his case study, Hiver (2013) carried out semi-structured interviews for three weeks, and he found out that there was a direct relationship between these teachers' possible language selves and their motivation to take part in professional development activities. The three main factors that motivated these teachers to participate in professional development activities were "repairing inadequacies of the self, enhancing the self, and adhering to normative obligations" (Hiver, 2013, p. 215). These findings showed the integral role that each type of possible selves in the initiation and maintenance of these teachers' professional development. Also, if a teacher's feared language teacher self was fundamental in his or her working self-concept, the most significant incentive was to overcome the inadequacies of the self. On the other, if a teacher's ideal language teacher self was central in his or her working self-concept, this teacher aimed to enhance the self and to increase the harmony between their actual language teacher selves and their ideal language teacher selves. This study also found that lacking self-

efficacy as language users was a driving force behind these teachers' participation in professional development activities.

Hamman, Coward, Johnson, Lambert, Zhou, and Indiatsi (2013) carried out a study to gain an insight into the relationship between student teachers' (i.e., teacher candidates in their last semester of practice teaching) possible selves and their efforts to become or to avoid becoming teachers of a certain type. Specifically, the study was aimed at understanding the effect of student teachers' formulations of future selves regarding their professional identity as well as the regulation of their behaviour while learning to teach. The researchers first distributed a questionnaire to student teachers so that they could categorize the student teachers based on how strong they perceive their teacher identity and their teaching confidence. Then, the researchers selected 10 participants and assigned them to the larger research team for interviews and observations in accordance with the results of the questionnaire. The findings of the study indicated that pondering on their future enabled the student teachers were able to control their behaviour to attain the goals and outcomes that they desired. Also, the findings revealed that these student teachers responded to contextual demands in ways that they had not considered prior to their initial teaching experiences, emphasizing the importance of interaction and reflection play in the formulation of teacher possible selves. Finally, the researchers pointed out that cooperating teachers greatly influenced the way student teachers visualized themselves in the future. Based on these findings, the researchers concluded that teacher education programs could incorporate professional identity development into their program objectives. They also suggested helping student teachers to regulate their learning-to-teach behaviours towards desired outcomes, as thinking about the future was one of the constructs that occurred spontaneously in the data.

Still another study that was aimed to explore the potential of possible selves for language teacher development was conducted by Rahmati et al. (2019). This mixed-methods study investigated the relationship between teachers' vision and motivation, and to this end, it employed possible selves theory and Activity Theory. The number of in-service teachers who took part in the study was 221, and among these teachers, 10 of them were interviewed about their vision and motivation to teach English. The first phase of the study involved semi-structured interviews, and the second phase involved a questionnaire which was developed based on the interview data. The results revealed that most of the participants of the study did not envision themselves as future professionals. Moreover, the researchers found that when these teachers had vision, their vision lacked clarity, and it comprised ideal L2 teacher self and L2 teaching experience, and it lacked ought-to and feared selves. Thus, the researchers identified L2 teacher vision typology as visionary, partially visionary, vision-compromised, and non-visionary, and they stated that it was not necessary to have vision for motivated behavior. The researchers concluded that the findings of the study might prove beneficial for teacher education programs.

In the Turkish context, Dalioglu and Adiguzel (2016) investigated the changes in preservice teachers' self-efficacy beliefs and possible selves during their first year in the teaching profession after practice teaching. The study had a mixed-methods design. The qualitative data was obtained through semi-structured interviews, whereas the quantitative data was gathered through a pre-test and post-test with a single group. The researchers concluded that teaching practice had an impact on teacher candidates' both self-efficacy beliefs and their teacher possible selves. While teaching practice did not positively influence teacher candidates' self-efficacy beliefs related to class management, it affected their self-efficacy beliefs

related to student engagement and teaching strategies. However, the qualitative findings were different from the quantitative findings, revealing that the teacher candidates considered themselves incompetent about classroom management even after teaching practice. On the other hand, with regard to teacher possible selves, their fears related to poor classroom management diminished considerably after teaching practice. The findings of the interviews conducted with the teacher candidates, however, revealed that they had concerns about classroom management even after teaching practice. Also, there was a medium-to-large positive correlation between self-efficacy beliefs and expected teacher possible selves of teacher candidates. The findings also indicated that there was a medium-to-large negative between self-efficacy beliefs and feared teacher possible selves, and no correlation between expected and feared teacher possible selves of the teacher candidates.

Ölmez-Çağlar (2019) also carried out a study in the Turkish context as part of her doctoral dissertation. The researcher had two main purposes: to design and validate a possible language teacher selves scale and a motivation for teaching English scale and to explore the relationships among senior year student teachers' possible language teacher selves, their motivations for teaching English, and their self-efficacy beliefs. The study had a multiple phase mixed-methods design. With regard to the scales, the findings revealed that they had sound psychometric properties. According to the findings of the study, the participants' all possible selves (i.e., ideal, ought-to, and feared language teacher selves), had an important role as their future self-guides. Compared with their ought-to selves, the participants' feared selves were less strong. The participants' perceived levels of autonomous motivation were significantly high. With regard to self-efficacy, it was found that the participants had positive self-efficacy beliefs, particularly concerning their

instructional strategies, their efficacy for student engagement and classroom management. The researcher also concluded that the ideal and ought-to language teacher selves had a strong and positive relationship. In addition, the participants' ideal and ought-to language teacher selves had a positive effect on both controlled motivation and autonomous motivation for teaching English. Finally, having stronger ideal language teacher selves resulted in having more autonomous motivation to teach English. In turn, these motivations led to higher levels of self-efficacy. Based on these findings, the researcher suggested allocating sufficient time and training to make the most of teachers' possible selves so that their motivation to teach English might increase.

Conclusion

This chapter comprised of the literature review related to technology integration in teaching English as a Foreign Language (EFL). Then, the benefits of and barriers to technology integration as well as the teachers' perceptions on technology integration are discussed. Next, an explanation of user acceptance models and various models with a focus on UTAUT are provided. Finally, the theory of language teacher's possible selves and its relationship with instructors' technology use are presented.

CHAPTER 3: METHODOLOGY

Introduction

The aim of this study is to investigate the relationship between EFL instructors' perceptions on technology use and their possible language teacher selves. It is also aimed to investigate whether there are differences between EFL instructors' groups based on their professional qualifications, degrees, and teaching experience with regard to their perceptions and possible language teacher selves in using technology. Therefore, the following research questions are asked:

1. Are there any statistically significant differences between the EFL instructors who have professional qualifications and those who do not have any professional qualifications regarding their perceptions on:
    a. performance expectancy
    b. effort expectancy
    c. attitude towards using technology
    d. social influence
    e. facilitating conditions
    f. self-efficacy
    g. anxiety
    h. behavioural intention to use technology?
2. Are there any statistically significant differences between the EFL instructors who hold BA degrees and those who hold MA or PhD degrees regarding their perceptions on:
    a. performance expectancy
    b. effort expectancy

c. attitude towards using technology
d. social influence
e. facilitating conditions
f. self-efficacy
g. anxiety
h. behavioural intention to use technology?

3. Are there any statistically significant differences among the groups of EFL instructors with different years of teaching experience regarding their perceptions on:
    a. performance expectancy
    b. effort expectancy
    c. attitude towards using technology
    d. social influence
    e. facilitating conditions
    f. self-efficacy
    g. anxiety
    h. behavioural intention to use technology?
4. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their ILTTS?
5. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their FLTTS?

6. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their OLTTS?
7. Is there any statistically significant relationship between EFL instructors' perceptions on technology use and their ILTTS, FLTTS, and OLTTS in the use of technology in the classroom?

In this chapter, information with regard to the methodology of this study is provided. First, the research design will be explained. Then, information about sampling and the sample size, the setting and the participants will be provided. Finally, instrumentation, method of data collection, and method of analysis will be described in detail.

Research Design

This quantitative study has a descriptive, non-experimental, and cross-sectional correlational design. First, it has a quantitative design because on online survey was distributed to the participants so as to collect data. In quantitative data collection, the instrument used to measure the variables in the study contains specific questions and possible responses that are developed prior to the study, and data are collected in the form of numbers so that the results from a small number of people can be applied to a large number (Creswell, 2012). Thus, it produces reliable and replicable data that can be generalized to other contexts (Dörnyei, 2007). In order to collect data, two surveys which were aimed to obtain data on instructors' perceptions on the use of technology and their possible language teacher selves were conducted. Second, it is a descriptive and non-experimental study because it aims to explain the EFL instructors' perceptions of technology use and their possible language teacher selves as they are. According to Gall, Gall, and Borg (2006), descriptive studies are

mainly concerned with determining "what" is examined. Finally, this study has a cross-sectional correlational research design because its purpose is to explore relationships between two variables by using correlational statistics (Gall et al., 2006). Although the time it took to collect all of the data was two weeks in total, the data were collected at one point in time, which resulted in having a cross sectional survey for this research (Fraenkel et al., 2012). According to Dörnyei (2007), conducting cross-sectional research enables researchers to "establish relationships between variables and to find out about the participants' thoughts, attitudes, and emotions as well as various cognitive and personality traits." In this study, the researcher aims to investigate the relationship between two variables, namely the perceptions of EFL instructors on the use of technology in the classroom and their possible language teacher selves. Therefore, a correlational design was considered a suitable design for this study to investigate the relationship between these two variables.

Sampling and the Sample Size

While conducting research, one of the most important steps is the selection of the participants who will take part in the study, and this process is called sampling (Fraenkel et al., 2012). Dörnyei and Taguchi (2010) define a *sample* in the research study as "the group of people whom the researchers actually examine", and they define the *population* as "the group of people whom the survey is about" (p. 60). Dörnyei and Taguchi (2010) state that in order for a sample to be considered good, it the target population and the sample should be alike in their most characteristics. In other words, the sample needs to represent the whole population. In this study, the sampling method that is employed is *convenience sampling*, which can be defined as

the process of selecting a group of individuals who are conveniently available for study from the target population (Fraenkel et al., 2012).

For the calculation of the sample size, there are different views depending on the type of the research design. According to Dörnyei and Taguchi (2010), the sample should include at least 30 people. On the other hand, Fraenkel et al. (2012) recommend at least 50 participants for correlational studies so as to find out the existence of a relationship if there is any. While calculating the sample size for this study, in addition to these sources, another source was taken into consideration. A website, which is called danielsoper.com, was utilized to calculate the sample size for this study, and a minimum size of 104 was required based on the calculation conducted on this website.

Setting

This current study was conducted at a preparatory school of a public university where English is the medium of instruction. At the beginning of the academic year, students who enrol in this university take either the proficiency exam or a placement exam. If they cannot pass the proficiency exam, they are placed at a level based on their grades. Those who take the placement exam are the ones who want to study one-year preparatory program, and they are also placed at a level according to the grade that they take at the placement exam. In total, there are six levels at the preparatory school.

In the fall semester, these levels are beginner, elementary, pre-intermediate, intermediate, upper-intermediate, and repeat. The hour of instruction varies at each level. Beginner group students, who become pre-intermediate group students in the spring semester, have 30 hours of instruction. On the other hand, elementary group students, who become lower-intermediate group students in the spring semester, have

25 hours of instruction. Both pre-intermediate and intermediate group students have 20 hours of instruction, and they are called intermediate and upper-intermediate group students, respectively in the spring semester. Upper-intermediate and repeat group students have a total of 15 hours of instruction in a week. Upper-intermediate group students are called advanced in the second semester, while the repeat students keep the same name. Except for the beginner level where students have two instructors, the students at all levels have only one instructor each semester. Each semester lasts 16 weeks.

On the other hand, the instructors who teach at the institution where the study was conducted have all gone through an obligatory one-year in-service teacher education program offered by the teacher trainers of the same institution. The program includes input sessions, workshops, assessed and unassessed observations, peer observations, assignments, and reflections tasks. Teacher trainers also conduct workshops for the whole staff. In addition to these workshops, instructors who want to attend a continuous professional development activity are sponsored by the administrators. Unfortunately, the number of the instructors who might be supported by the institution depends mainly on its budget. The instructors who are supported by the institution conduct sessions on the practices that they have learned by attending a professional development activity. Therefore, it can be said that opportunities for continuous professional development activities are offered in this department although the ones supported by the institution are available for a limited number of instructors. Considering their further academic degrees, while some of the instructors hold MA degrees, some have PhD degrees. However, as of November 9, 2018, in accordance with the legislation published in the Official Gazette in Turkey, having an MA degree has become a prerequisite for teachers who want apply to universities

in order to be employed as instructors. Thus, the instructors who were employed after the aforementioned date at the institution where the study was conducted have MA degrees as required by the legislation.

When it comes to the workload of the instructors, their teaching hours as part of their departmental duty vary from 15 hours to 25 hours. At the beginning of each semester, they choose the hours that they prefer to teach, and they are assigned to teach a certain level by the administrators based on certain criteria. In addition to the hours assigned to them as part of their teaching duty, the instructors might also teach eight, 10, or 15 hours in the courses offered by the department on weekdays or at the weekends if they wish to do so. Therefore, the teaching load of each instructor is different at this department.

Participants

When the data were collected in 2019-2020 Spring semester, the number of instructors at the institution was 186. First, 38 of these instructors participated in the piloting stage. Then, 96 participants took part in the actual study. Information concerning the participants of the study is presented in Table 1.

Table 1

Information about the Participants of the Study

Demographic Information	*N*
Gender	
Female	117
Male	16
Other	1
Country of Origin	
Turkey	128
Germany	1
Russian Federation	1

Table 1 (cont'd)

Information about the Participants of the Study

Demographic Information	*N*
Country of Origin	
Italy	1
United Kingdom of Great Britain and Northern Ireland	2
United States of America	1
Age	
21 – 30	1
31 – 40	53
41 – 50	54
51 – and over	26
Years of Experience	
1 – 5 years	0
6 – 10 years	8
11 – 15 years	40
16 – 20 years	32
21 years and over	54
The Highest Degree Completed	
Bachelor's	42
Master's	85
PhD	7
Other Qualifications	
ICELT	41
CELTA	11
DELTA	9
Other	19
No Qualifications	54
Administrative Duty	12

Table 1 (cont'd)

Information about the Participants of the Study

Demographic Information	*N*
Level Taught	
Pre-Intermediate	24
Lower-Intermediate	19
Intermediate	22
Upper-Intermediate	31
Advanced	19
Repeat	7
None	12

Instrumentation

An online survey was distributed to instructors via Qualtrics platform in order to collect data (see Appendix C). The survey started with an Informed Consent Form (see Appendix A), and it included three main parts: the instructors' perceptions on technology use in the classroom, their possible language teacher selves regarding its use, and the demographic information.

The first part of the survey was taken and adapted from Venkatesh et al. (2003). The items in this part of the survey were aimed to determine users' technology acceptance and usage behaviour by considering their *performance expectancy, effort expectancy, social influence, facilitating conditions, attitude toward using technology, self-efficacy, anxiety,* and *behavioural intention to use technology.* In order to find out about whether the instructors' found technology integration useful, there were three items related to their *performance expectancy*. Four of the items in the survey aimed to measure the instructors' *effort expectancy,* that is, whether they found it easy or not to integrate technology into their classes, while another set of four items aimed to investigate the impact of *social influence* on

their technology use. *Facilitating conditions* and *attitude toward using technology* were investigated through four items. *Self-efficacy* was also examined through three items, aiming to find out whether instructors could complete a task or job employing technology with or without someone's assistance. While four items related to *anxiety* intended to explore whether the instructors felt anxious or hesitant about technology use, three items aimed to explore their *behavioural intention to use technology*. In the survey, the Likert scale, which is one of the most commonly used form of attitude scales, was used to obtain data, and the items on the scale ranged from *Strongly Disagree* to *Strongly Agree*.

In the second part of the survey, on the other hand, the items were aimed to determine the instructors' possible language teacher selves with regard to technology use. To this end, the survey was designed by the researcher after reviewing the literature on possible selves extensively by considering the facilitating or inhibiting factors related to the instructors' technology use in their classes and the constructs of possible language teacher selves. There were 31 questions in this section, and while 12 of the items were related to instructors' ideal language teacher selves, 10 items were related to their feared language teacher selves, and nine items were related to their ought-to language teacher selves. The items on the instructors' ideal language teacher selves aimed to explore the type of the teacher that the instructors would like to become, while the items on their feared language teacher selves aimed at finding the teacher that they were afraid of becoming or that they wanted to avoid with regard to technology use. When it comes to the items concerning the ought-language teacher selves, these items were aimed investigate the extrinsic factors that impact instructors' technology use. In this part of the survey, the Likert scale was used, too, but this time the items ranged from *Very Untrue of Me* to *Very True of Me*. After the

researcher wrote the items for the survey, the items were reviewed by colleagues for logical validity. Based on their feedback, the researcher revised the survey, and piloted it. Detailed information with regard to the piloting stage is provided below.

In the final part of the questionnaire, the items were aimed to gather data on the participants' gender, country of origin, age, years of teaching experience, their educational background, professional qualifications, administrative duty, and the level that they were teaching when the study was conducted.

Piloting the Questionnaire

A pilot study is an essential method of evaluating how feasible and useful the data collection methods are, and it enables researchers to revise the problematic items before the actual study is conducted (Mackey & Gass, 2005). Therefore, so as to uncover unanticipated problems and to be able to solve them before implementing the actual study, the piloting stage was initiated upon obtaining the permissions from the university's Ethics Committee and from the university where the study would be carried out.

The survey was distributed to 40 participants at the university where the study would be conducted. In order to make sure that the instructors who were given the survey taught at varying levels in the institution and that their age and teaching experience varied, special attention was paid. Out of the 40 instructors to whom the survey was sent, 38 completed the survey. The data obtained from the piloting stage was analysed on Statistical Package for the Social Sciences (SPSS) v.25.

In order to measure the internal consistency reliability of the items, the Cronbach Alpha coefficient was checked (see Table 2). According to Cohen, Manion, and Morrison (2018), the Cronbach Alpha "provides a coefficient of inter-item correlations, i.e., the correlation of each item with the sum of all the other

relevant items" (p. 270). It enables researchers to measure internal consistency among items (Cohen et al., 2018). The Cronbach's alpha level or Cronbach's alpha coefficient is a figure which ranges between 0 and +1, but it can also be negative in some cases due to reasons such as having very small samples or having items that measure different constructs within a construct (Dörnyei, 2007). He suggests that internal consistency reliability estimates of a well-developed scale with items is expected be about .80. He also suggests that even when a scale is short and it has only three or four items, Cronbach Alpha level should reach .70, and if it is below .60, it is regarded as low. For a test to be considered internally consistent, this measure is expected to be over .70 (Muijs, 2004).

The Cronbach Alpha level for performance expectancy section was .89, which showed that the items were highly reliable. When the corrected item-total correlation values of these items were checked, it was seen that their values were .83, .86, and .70, respectively.

The items in the effort expectancy section were also reliable, and the items had a Cronbach Alpha level of .81. Upon checking the corrected item-total correlation values of these items, it was seen that their values were .45, .72, .74, and .65, respectively.

The items in the next section, attitude toward using technology, had a Cronbach Alpha level of .87, which showed them to be highly reliable as well. After checking the corrected item-total correlation values of these items, the values were found to be .54, .79, .80, and .79, respectively.

In the social influence section, the items were found to be not reliable as they had a Cronbach Alpha level of .64. Therefore, the items' corrected item-total correlation values were checked, and their values were .48, .17, .51, and .54,

respectively. Removing the items would not increase reliability, so the items were kept for the actual study.

The items in the facilitating conditions section had a Cronbach Alpha level of .42, which was low to be considered reliable. The items' corrected item-total correlation values were .34, .18, .24, and .20, respectively. When deleted, these items would have a Cronbach Alpha level of .22, .40, .36, and .41, respectively. As removing these items would not increase reliability, these items were kept for the actual study.

The items for the self-efficacy section were found to be not reliable, and they had a Cronbach Alpha level of .09. When the items' corrected item-total correlation values were checked, it was seen that their values were -.17, .02, .12, and .29, respectively. Because the first item in this section had a negative value, reverse coding was done. After this procedure, the corrected item-total correlation of these items became more reliable, and their values were .17, .30, .38, and .06, respectively. For the last item, the Cronbach Alpha level if deleted was .48, so it was removed from the study. For the remaining three items, the corrected item-total correlation values were found to be .30, .30, and .29, respectively.

The items concerning anxiety were highly reliable, and they had a Cronbach Alpha level of .87. Upon checking the corrected item-total correlation values of these items, their values were found to be .72, .69, .83, and .69, respectively.

The items in the behavioural intention to use technology had a Cronbach Alpha level of .97, which showed them to be highly reliable. After checking the corrected item-total correlation values of these items, it was seen that their values were .91, .94, and .96, respectively.

Table 2

Cronbach Alpha Coefficients for Perceptions on Technology Use Items in the Pilot Study

Survey Parts	Cronbach's Alpha
Performance expectancy	.89
Effort expectancy	.81
Attitude toward using technology	.87
Social Influence	.64
Facilitating Conditions	.42
Self-Efficacy	.48
Anxiety	.87
Behavioural intention to use technology	.97

The items in the rest of the questionnaire aimed to determine the instructors' possible language teacher selves with regard to technology use. There were three sections in this part of the questionnaire, and the items can be grouped under those that aim at finding out about ideal language teacher technology selves (ILTTS), feared language teacher technology selves (FLTTS), and ought-to language teacher technology selves (OLTTS). Before conducting an analysis to check the Cronbach's Alpha level of the items, to explore the factor structure underlying the language teacher possible selves in the pilot data set, a factor analysis was done. By conducting a factor analysis, a larger set of variables is reduced to a smaller set of factors which account for a larger portion of the total variability in the items (Cohen, et al., 2018). In order to identify each factor's identity, the items that correlate with each other are checked. The meaning of a factor is defined through its conceptual

link to all the other items that correlate with it. When a few factors can explain a large portion of the total variability and when a meaningful name can be given to those factors using the assortment of items correlating the highest with it, the result can be considered to be a successful one.

The methods of factor analysis used for the pilot study were as follows: principal components analysis to extract the factors from the variable data, Direct Oblimin for factor rotation, Kaiser's rule to determine the most eligible factors for interpretation, and the Kaiser-Mayer-Olkin (KMO) measure to check whether the sampling was adequate.

Two factors were identified for ILTTS (see Appendix D, Table 3) and OLTTS (see Appendix D, Table 8), and one factor was identified for FLTTS. The two factors for ILTTS explain 81% of all the variable variances, while they explain 72% of all the variable variances for OLTTS. One factor that was identified for FLTTS accounts for 88% of all the variable variances. Scree plots of the eigenvalues are provided for ILTTS, OLTTS, and FLTTS in Figures 1, 2, and 3 in Appendix D, respectively.

The Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy was checked. According to Cohen et al. (2018), this value should be .6 or higher, and for ILTTS, FLTTS, and OLTTS, KMO values were found to be .8, .9, and .8, respectively. Therefore, it was determined that the number of participants for the pilot study was adequate.

Another part of the results that require inspection is the table of communalities. Communalities show how much the factors can account for the variance of the variables. Two sets of communalities, namely the initial set and the extracted set, are provided in a proper solution. The communalities for ILTTS,

FLTTS, and OLTTS were fine in this study; thus, it further proved that the results were appropriate for interpretation (see Appendix D, Tables 2, 5, and 7 for ILTTS, FLTTS, and OLTTS, respectively).

In the structure matrix for ILTTS, it was seen that there was an equal distribution of items to the factors. While items 1, 2, 3, 4, 5, 11, and 12 loaded on the first factor, the remaining items (that is, items 6, 7, 8, 9, and 10) loaded on the second factor (see Appendix D, Table 3). The items that loaded on the first factor are named as "ideal language teacher selves with technology integration knowledge," whereas the ones that loaded on the second factor are named as "ideal language teacher selves with technology integration practice." On the other hand, the structure matrix for OLTTS revealed that items 1, 2, 5, 6, 7, 8, and 9 in OLTTS section loaded high on the first factor, the rest of the items in this section (i.e., items 3 and 4) loaded high on the second factor (see Appendix D, Table 8). While the items that load on the first factor are named as "ought-to language teacher selves extrinsically motivated to use technology" those that load on the second factor are named as "ought-to language teacher selves extrinsically motivated to prepare technology-integrated materials". There was no structure matrix for FLTTS as there was only one factor.

For the items in the rest of the survey, after the factor analysis, the Cronbach Alpha level of the items related to possible language teacher selves was checked. The questionnaire included 12 items that aimed to explore ILTTS. The Cronbach Alpha level of these items was .95, which showed them to be highly reliable (see Table 3). After checking the corrected item-total correlation values of these items, it was seen that their values were .85, .81, .76, .73, .91, .87, .78, .77, .71, .66, .74, and .82, respectively. The items related to ILTTS loaded on two factors. The items that

loaded on the first factor had a Cronbach Alpha level of .95. The corrected item-total correlation of these items, that is items 1, 2, 3, 4, 5, 11, and 12, were .88, .90, .88, .83, .86, .75, and .77, respectively. On the other hand, the items that loaded on the second factor had a Cronbach Alpha level of .92. Upon checking the corrected item-total correlation values of these items, that is items 6, 7, 8, 9, and 10, their values were found to be .82, .75, .78, .86, and .81, respectively.

In the next section which aimed to find out about FLTTS, the items' Cronbach Alpha level was found to be .98 (see Table 3). There were 10 items in this section. These items' corrected item-total correlation values were .87, .92, .93, .94, .92, .93, .82, .94, and .95, respectively.

In the final section aiming to investigate OLTTS with nine items in total, the Cronbach Alpha level was found to be .91 (see Table 3). It was seen that the corrected item-total correlation values of these items were .76, .81, .50, .70, .75, .71, .72, .70, and .58, respectively. The items related to OLTTS loaded on two factors. The Cronbach's Alpha level was .91 for the items that loaded on the first factor. The corrected item-total correlation of these items, that is items 1, 2, 5, 6, 7, 8, and 9, were .75, .81, .70, .76, .72, and .71, respectively. On the other hand, the items that loaded on the second factor had a Cronbach Alpha level of .86. When the corrected item-total correlation of items 3 and 4 were checked, their values were found to be .76 for both of them. The Cronbach Alpha Coefficients for perceptions on possible language teacher selves items in the pilot study are provided in Table 3.

Table 3

Cronbach Alpha Coefficients for Perceptions on Possible Language Teacher Selves Items in the Pilot Study

Survey Parts	Cronbach's Alpha	Factor 1	Factor 2
ILTTS	.95	.95	.92
FLTTS	.98	-	-
OLTTS	.91	.86	.76

After examining the results of both the reliability and the factor analysis, it can be seen that the scores from this instrument reveal a valid assessment of an instructor's language teacher technology selves. Therefore, it is appropriate to use the selected items for further data collection for the main study.

Item Reliability Analysis of the Actual Study

In accordance with the results of the data gathered from the piloting stage of the study, the first item under self-efficacy section *(if there was no one around me to tell me what to do as I go)* (see Appendix B) was first reversely coded, and after that, the item reliability tests were carried out. However, when the data for item reliability was checked, it was seen that coding this item reversely would increase the reliability of the data. Moreover, although the data from the pilot study did not require reverse coding for items 2 and 3 in the self-efficacy section and for items 1, 2, 3, and 4 in the anxiety section, these items were reversely coded after conducting the item reliability analysis. The might due to the differences between the characteristics of the instructor population in the pilot study and the actual study or the increase in the number of the instructors in the actual study.

The results of the item reliability analysis conducted after the actual study revealed that the Cronbach Alpha levels for the constructs (i.e., performance

expectancy, effort expectancy, social influence, facilitating conditions, attitude toward using technology, self-efficacy, anxiety, and behavioural intention to use technology) were .89, .86, .72, .61, .88, .44, .85, and .97, respectively. The Cronbach Alpha levels were also checked for the items in the possible language teacher selves questionnaire.

The Cronbach Alpha levels of the ILTTS, FLTTS, and OLTTS are .97, .97, and .88, respectively. The items that loaded on the first factor in ILTTS had a Cronbach Alpha level of .95. The corrected item-total correlation of these items, that is items 1, 2, 3, 4, 5, 11, and 12, were .78, .88, .90, .77, .86, .77, and .80, respectively. On the other hand, the items that loaded on the second factor had a Cronbach Alpha level of .93. The corrected item-total correlation of these items, that is items 6, 7, 8, 9, and 10, were .84, .81, .80, .83, and .80, respectively. For FLTTS, there was only one factor. As for OLTTS, the Cronbach's Alpha level for the items that loaded on the first factor was .86. The corrected item-total correlation of these items (i.e., items 1, 2, 5, 6, 7, 8, and 9) were .69, .69, .63, .63, .55, and .55, respectively. On the other hand, the items that loaded on the second factor had a Cronbach Alpha level of .85. The corrected item-total correlation of items 3 and 4, were .74 for both of them. The Cronbach Alpha Coefficients for the actual survey are provided in Table 4.

Table 4

Cronbach Alpha Coefficients for the Actual Survey

Survey Parts	Cronbach Alpha	Factor 1	Factor 1
Performance Expectancy	.89		
Effort Expectancy	.86		
Social Influence	.72		

Table 4 (cont'd)

Cronbach Alpha Coefficients for the Actual Survey

Survey Parts	Cronbach Alpha	Factor 1	Factor 2
Facilitating Conditions	.61		
Attitude toward Using Technology	.88		
Self-efficacy	.44		
Anxiety	.85		
Behavioural Intention to Use Technology	.97		
ILTTS	.97	.95	.93
FLTTS	.97	-	-
OLTTS	.88	.86	.85

Method of Data Collection

Having obtained permission from the university's Ethics Committee and the university where the study would be conducted, the piloting stage of the survey was initiated and finalized (see Appendix C). The survey was sent to all the instructors digitally (e.g., via email). The email included the details of the study, emphasizing that the participants' identities would be kept strictly confidential. The web link remained active for two weeks.

Method of Data Analysis

Descriptive as well as inferential statistics were utilized while answering the research questions for this study. The quantitative data were converted into SPSS v.25, and data analysis was done. Initially, the data was checked to make sure that

there were no missing data. Then, item reliability analyses were conducted, and composite scores were created for each construct in the survey.

Conclusion

This chapter provided information about the research design, sampling and the sample size, setting, the participants of the study, the instruments that were used, the piloting stage, item reliability analysis of the actual study, method of data collection, and method of data analysis. In the following chapter, the results of the study will be presented.

CHAPTER 4: RESULTS

Introduction

The aim of conducting this study was to investigate whether there was a relationship between EFL instructors' perceptions on the use of technology in the classroom and their possible language teacher selves. Also, the researcher aimed to examine whether there were differences between EFL instructors' groups based on their professional qualifications, degrees, and teaching experience with regard to their perceptions and possible language teacher selves in using technology. In this respect, the study addressed the following research questions:

1. Are there any statistically significant differences between the EFL instructors who have professional qualifications and those who do not have any professional qualifications regarding their perceptions on:
    a. performance expectancy
    b. effort expectancy
    c. attitude towards using technology
    d. social influence
    e. facilitating conditions
    f. self-efficacy
    g. anxiety
    h. behavioural intention to use technology?
2. Are there any statistically significant differences between the EFL instructors who hold BA degrees and those who hold MA or PhD degrees regarding their perceptions on:
    a. performance expectancy

b. effort expectancy
c. attitude towards using technology
d. social influence
e. facilitating conditions
f. self-efficacy
g. anxiety
h. behavioural intention to use technology?

3. Are there any statistically significant differences among the groups of EFL instructors with different years of teaching experience regarding their perceptions on:
    a. performance expectancy
    b. effort expectancy
    c. attitude towards using technology
    d. social influence
    e. facilitating conditions
    f. self-efficacy
    g. anxiety
    h. behavioural intention to use technology?
4. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their ILTTS?
5. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their FLTTS?

6. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their OLTTS?
7. Is there any statistically significant relationship between EFL instructors' perceptions on technology use and their ILTTS, FLTTS, and OLTTS in the use of technology in the classroom?

The aim of conducting this study was to investigate the perceptions of 134 EFL instructors based on the research questions that are mentioned above. The data were collected via a survey distributed online on the Qualtrics platform. While the items that were aimed to explore instructors' perceptions on technology use were taken and adopted from Venkatesh et al. (2003), the items that were aimed to investigate their language teacher technology selves were devised by the researcher of the current study (see Appendix B). After the Informed Consent Form, the items in the survey consisted of five main sections: the items related to instructors' perceptions technology use, their ideal language teacher technology selves, feared language teacher technology selves, ought-to language teacher technology selves, and demographics (see Appendix B).

The items focusing on instructors' perceptions on technology use consisted of eight constructs: performance expectancy, effort expectancy, social influence, facilitating conditions, attitude toward using technology, self-efficacy, anxiety, and behavioural intention to use technology. On the other hand, the items that were about the EFL instructors' possible language teacher selves included three main constructs: ideal language teacher technology selves (ILTTS), feared language teacher technology selves (FLTTS), and ought-to language teacher technology selves (OLTTS). The items that were aimed to find out about the instructors' ideal

technology selves were combined in two factors (i.e., ideal language teacher selves with technology integration knowledge and ideal language teacher selves with technology integration practice), and ought-to language teacher technology selves had two factors (i.e., ought-to language teacher selves extrinsically motivated to use technology and ought-to language teacher selves extrinsically motivated to prepare technology-integrated materials). By contrast, the items that were aimed to find out about feared language teacher technology selves had only one factor. The analysis of the quantitative data obtained from the aforementioned survey was carried out utilizing SPSS v.25.

Normality Evaluation of the Actual Study

In order to conduct parametric procedures, the data need to be normally distributed (Dörnyei, 2007); therefore, preliminary analyses were carried out so that the normality of the data could be checked. The normality of the data was determined by checking the Skewness and Kurtosis values. While the former indicates the symmetry of the distribution, the latter gives information about the 'peakedness' of the distribution (Pallant, 2011).

The Skewness and Kurtosis values of each composite score were checked by conducting a z-test which is obtained by dividing the Skewness values or the Kurtosis values by their standard errors (Kim, 2013). According to Kim (2013), if the z-value is over 3.29, the distribution of the sample is considered non-normal for sample sizes that are between 50 and 300 (i.e., medium-sized samples). For this study, the sample size was 134, so it is under the category of medium-sized samples. If the z-value is over 3.29, first whether there is an outlier or not is checked for the composite score that is being analysed. Then, the mean and the trimmed mean of the data are checked. Trimmed mean is a value that is obtained by discarding the top and

the bottom 5% of the cases and by calculating a new mean value (Pallant, 2011). When the trimmed mean is subtracted from the mean, the trimmed mean and the mean values are not supposed to be very different (Pallant, 2011).

Before conducting any statistical analyses in order to answer research questions 1, 2, and 3, whether the data were normally distributed or not was checked. These questions focused on finding out if there was any statistically significant difference between EFL instructors' professional qualifications, degrees, and years of teaching experience regarding their performance expectancy, effort expectancy, attitude towards using technology, social influence, facilitating conditions, self-efficacy, anxiety, and behavioural intention to use technology. To determine whether the data were normally distributed or not, the composite scores of the items related to performance expectancy, effort expectancy, attitude towards using technology, social influence, facilitating conditions, self-efficacy, anxiety, and behavioural intention to use technology were checked. By dividing the Skewness values and the Kurtosis values to their standard errors, z-scores were obtained. Although some of the z-scores were found to be higher than 3.29, the difference between the mean and the trimmed mean showed that the data were normally distributed (see Appendix E, Table 1).

The research questions 4, 5, and 6 were aimed to investigate whether there is any statistically significant difference between EFL instructors' ILTTS, FLTTS, and OLTTS in the use of technology and the highest degree they earned, their professional qualifications, and their years of teaching experience. To this end, the composite scores of items related to each possible language teacher selves and the highest degree they earned, their professional qualifications, and years of teaching experience were checked to see if the data were distributed normally. By dividing the

Skewness values and the Kurtosis values of each group to their standard errors, z-scores were obtained. It was found that some of the z-scores were above 3.29; therefore, after checking the boxplots to see the outliers, the calculation of the difference between the mean and the trimmed mean revealed that the data were normally distributed (see Appendix E, Table 2).

The last research question focused on exploring whether there is any statistically significant relationship between EFL instructors' perceptions on technology use and their ILTTS, FLTTS, and OLTTS. To find out if the data were normally distributed or not, the composite scores of items about perceptions on technology and the composite scores of the items for ILTTS, FLTTS, and OLTTS were checked. Z-scores of the data were obtained by dividing the Skewness values and the Kurtosis values of each group by their standard errors. When the z-scores of the data were higher than 3.29, the boxplots were checked and the difference between the mean and the trimmed mean were calculated. Based on the results, it was determined that the data were normally distributed (see Appendix E). In the next section, the results will be provided in the same order with the research questions.

Results of the Study

Perceptions on Technology Use Depending on Professional Qualifications

To answer the first research question which was aimed at finding out whether there were any statistically significant differences between the group of EFL instructors who had professional qualifications and those who did not in terms of their perceptions on performance expectancy, effort expectancy, attitude towards using technology, social influence, facilitating conditions, self-efficacy, anxiety, and behavioural intention to use technology, independent samples t-tests were conducted (see Table 5). Eight independent samples t-tests were conducted together. Therefore,

a Bonferroni correction was done. The new p-value was .006 (.05 / 8 = .006). The results are presented based on the new *p* value as follow:

Table 5

Independent Samples t-test Results: Differences between EFL Instructors with Professional Qualifications (N = 80) and without Professional Qualifications (N = 54) in terms of Their Perceptions on Technology Use

Constructs	Groups	*M*	*SD*	*t*	*df*	*p*	95% Confidence Interval of the Difference	
							Lower	*Upper*
Performance Expectancy	1	4.42	0.652	1.900	91	.061	-0.013	0.604
	2	4.12	0.796					
Effort Expectancy	1	4.12	0.633	2.097	91	.039	0.017	0.639
	2	3.79	0.816					
Attitude	1	4.33	0.763	1.271	91	.207	-0.119	0.541
	2	4.12	0.809					
Social Influence	1	3.14	0.537	-0.503	91	.616	-0.287	0.171
	2	3.20	0.557					
Facilitating Conditions	1	3.58	0.535	2.139	91	.035	0.018	0.479
	2	3.33	0.564					
Self-efficacy	1	2.78	0.618	-0.200	91	.842	-0.270	0.221
	2	2.80	0.566					
Anxiety	1	4.15	0.617	1.856	91	.067	-0.021	0.612
	2	3.85	0.845					
Behavioural Intention	1	4.24	0.872	0.818	91	.416	-0.210	0.503
	2	4.09	0.840					

Note. Group 1: Instructors with professional qualifications; Group 2: Instructors without professional qualifications

Performance expectancy. Levene's test for equality of variances indicated that the assumption of homogeneity of variances was met (p = .313). Based on the results of the independent samples t-test, it was found that there was not a

statistically significant difference between the two groups with regard to their performance expectancy ($t(91) = 1.900$, $p = .061$). As shown in Table 5, the instructors who had professional qualifications (i.e., ICELT, CELTA, DELTA, or any other) had a mean score of 4.42 ($SD = 0.652$). On the other hand, those who did not have extra professional qualifications had a lower mean score ($M = 4.12$, $SD = 0.796$). The 95% confidence interval showed that the true mean difference was between -.013 and .604 (see Table 5). The effect size (*Cohen's d*) was 0.41, indicating that 41% of the variance in the instructors' perceptions on performance expectancy was accounted for by whether the instructors had any professional qualifications or not. The results showed that although the difference between the two groups was not statistically significant, the instructors who had professional qualifications had a higher mean score regarding their perceptions on performance expectancy compared to those who did not.

Effort expectancy. According to Levene's test for equality of variances, the assumption of homogeneity of variances was met ($p = .238$). There was not a statistically significant difference between the two groups with regard to effort expectancy ($t(91) = 2.097$, $p = .039$) based on the results of the independent samples t-test. While the instructors with professional qualifications such as ICELT, CELTA, and DELTA had a mean score of 4.12 ($SD = 0.663$), the ones without extra professional qualifications had a mean score of 3.79 ($SD = 0.816$) in terms of their effort expectancy in technology use (see Table 5). The 95% confidence interval indicated that the true mean difference ranged from .017 to .639 (see Table 5). The effect size was .45, pointing out that 45% of the variance regarding the instructors' perceptions on effort expectancy was explained by whether the instructors had any professional qualifications or not. Based on the results, there was not a statistically

significant difference between the two groups; however, the instructors who had extra professional qualifications had a higher mean score with regard to their perceptions on effort expectancy than those who did not.

Attitude towards using technology. Based on Levene's test for equality of variances, the assumption of homogeneity of variances was fulfilled (p = .307). According to the results of the independent samples t-test, there was not a statistically significant difference between the two groups with regard to their attitude towards using technology ($t(91) = 1.271$, p = .207). The instructors who had professional qualifications had a mean score of 4.33 (SD = 0.763), whereas those who did not have extra professional qualifications had a mean score of 4.12 in terms of their attitude towards using technology (SD = 0.809) (see Table 5). The 95% confidence interval showed that the true mean difference was between -.119 and .541 (see Table 5). The calculation of effect size (*Cohen's d* = 0.27) indicated that 27% of the variance with respect to the instructors' perceptions on attitude towards using technology was accounted for by whether the instructors had any professional qualifications or not. Although the difference between the groups was not statistically significant, the instructors with professional qualifications had a higher score regarding their perceptions on attitude towards using technology than the ones who did not have extra professional qualifications.

Social influence. Levene's test for equality of variances indicated that the assumption of homogeneity of variances was fulfilled (p = .925). The results of the independent samples t-test showed that there was not a statistically significant difference between the two groups with regard to social influence ($t(91) = -0.503$, p = .616). As indicated in Table 5, the instructors with professional qualifications had a mean score of 3.14 (SD = 0.537). In contrast, those who did not have extra

professional qualifications had a mean score of 3.20 (*SD* = 0.557). The 95% confidence interval showed that the true mean difference was between -.287 and .171 (see Table 5). When the effect size was calculated, it was found to be 0.11, demonstrating that 11% of the variance in the instructors' perceptions on social influence was explained by whether the instructors had any professional qualifications or not. The instructors who had professional qualifications had a lower mean score with respect to their perceptions on social influence compared to those who did not obtain extra professional qualifications.

Facilitating conditions. According to Levene's test for equality of variances, the assumption of homogeneity of variances was met ($p = .875$). The results of the independent samples t-test showed that there was not a statistically significant difference between the two groups with regard to their perceptions on facilitating conditions ($t(91) = 2.139$, $p = .035$). As shown in Table 5, the instructors who had professional qualifications had a mean score of 3.58 (*SD* = 0.535). On the other hand, those who did not have any qualifications had a lower mean score (*M* = 3.33, *SD* = 0.564). The 95% confidence interval showed that the true mean difference was between .018 and .479 (see Table 5). The effect size was 0.45, indicating that 45% of the variance in the instructors' perceptions on facilitating conditions was accounted for by whether the instructors had any professional qualifications or not. The difference between the groups was not statistically significant; however, the instructors with professional qualifications had a higher mean score with respect to their perceptions on facilitating conditions than the ones who did not have extra professional qualifications.

Self-efficacy. Levene's test for equality of variances showed that the assumption of homogeneity of variances was met ($p = .514$). Based on the results,

there was not a statistically significant difference between the two groups with respect to their self-efficacy ($t(91) = -0.200$, $p = .842$). The instructors who had professional qualifications had a mean score of 2.78 ($SD = 0.618$). On the other hand, those who did not have extra professional qualifications had a mean score of 2.80 ($SD = 0.566$) (see Table 5). The 95% confidence interval showed that the true mean difference was between -.270 and .221 (see Table 5). The effect size was 0.03, indicating that 3% of the variance in the instructors' perceptions on self-efficacy was accounted for by whether the instructors had any professional qualifications or not. There was not a statistically significant difference between the groups; however, the instructors who did not have extra qualifications had a slightly higher mean score with respect to their perceptions on self-efficacy than the ones with professional qualifications.

Anxiety. Levene's test for equality of variances showed that the assumption of homogeneity of variances was met ($p = .052$). The results of the independent samples t-test showed that there was not a statistically significant difference between the two groups with regard to anxiety ($t(91) = 1.856$, $p = .067$). The instructors who had professional qualifications (i.e., ICELT, CELTA, DELTA, or any other) had a mean score of 4.15 ($SD = 0.617$) (see Table 5). On the other hand, those who did not have extra professional qualifications had a mean score of 3.85 ($SD = 0.845$). The 95% confidence interval showed that the true means difference was between -.021 and .612 (see Table 5). The effect size was 0.41, indicating that 41% of the variance in the instructors' perceptions on anxiety was explained by whether the instructors had any professional qualifications or not. The results showed that the instructors who did not have extra professional qualifications had a lower mean score regarding

their perceptions on anxiety compared to the ones who had professional qualifications.

Behavioural intention to use technology. Levene's test for equality of variances showed that the assumption of homogeneity of variances was met (p = .799). The results of the independent samples t-test showed that there was not a statistically significant difference between the two groups with regard to their behavioural intention to use technology ($t(91) = 0.818$, p = .416). Table 5 indicates that the instructors who had professional qualifications had a mean score of 4.24 (SD = 0.872), while those who did not have extra professional qualifications had a mean score of 4.09 (SD = 0.840). The 95% confidence interval showed that the true means difference was between -.210 and .503 (see Table 5). The effect size was 0.18, indicating that 18% of the variance in the instructors' perceptions on behavioural intention to use technology was accounted for by whether the instructors had any professional qualifications or not. Based on the results, although there was not a statistically significant difference between the two groups, the instructors with professional qualifications had a higher score with regard to their perceptions on behavioural intention to use technology than those who did not.

Perceptions on Technology Use Depending on Degrees

In order to answer the second research question, independent samples t-tests were conducted so as to find out whether there were any statistically significant differences between the group of EFL instructors who hold BA degrees and those who hold MA or PhD degrees in terms of their perceptions on performance expectancy, effort expectancy, attitude towards using technology, social influence, facilitating conditions, self-efficacy, anxiety, and behavioural intention to use technology (see Table 6). Similar to the first question, eight independent t-tests were

conducted together. Therefore, a Bonferroni correction was done. The new p-value was .006 (.05 / 8 = .006). The results are presented under the headings below.

Table 6

Independent Samples t-test Results: Differences between EFL Instructors with BA Degrees (N = 42) or Those with MA or PhD Degrees (N = 92) in terms of Their Perceptions on Technology Use

Constructs	Groups	*M*	*SD*	*t*	*df*	*p*	95% Confidence Interval of the Difference	
							Lower	*Upper*
Performance Expectancy	1	4.17	0.726	-0.282	132	.779	-0.314	0.236
	2	4.21	0.755					
Effort Expectancy	1	3.65	0.855	-1.969	132	.051	-0.556	0.001
	2	3.93	0.707					
Attitude	1	4.07	0.961	-0.983	58.527	.330	-0.486	0.166
	2	4.23	0.644					
Social Influence	1	3.15	0.622	0.278	132	.781	-0.195	0.259
	2	3.12	0.615					
Facilitating Conditions	1	3.14	0.769	-2.578	60.028	.012	-0.601	-0.076
	2	3.48	0.538					
Self-efficacy	1	2.67	0.538	-1.914	132	.058	-0.412	0.000
	2	2.88	0.594					
Anxiety	1	3.82	0.847	-0.475	132	.636	-0.378	0.231
	2	3.89	0.817					
Behavioural Intention	1	3.98	0.969	-1.463	132	.146	-0.525	0.079
	2	4.20	0.741					

Note. Group 1: Instructors with BA degree; Group 2: Instructors with MA or PhD degree

Performance expectancy. Levene's test for equality of variances indicated that the assumption of homogeneity of variances was met (p = .886). The results of the independent samples t-test showed that there was not a statistically significant

difference between the two groups with regard to their performance expectancy ($t(132) = -0.282$, $p = .779$). As shown in Table 6, the instructors who held BA degrees had a mean score of 4.17 ($SD = 0.726$). On the other hand, those who held MA or PhD degrees had a mean score of 4.21 ($SD = 0.755$). The 95% confidence interval showed that the true mean difference was between -.314 and .236 (see Table 6). The effect size was 0.05, indicating that 5% of the variance in the instructors' perceptions on performance expectancy was accounted for by whether the instructors had further academic degrees or not. Although the difference between the two groups was not statistically significant, the instructors who held MA or PhD degrees had a higher mean score with regard to their perceptions on performance expectancy compared to those who held BA degrees.

Effort expectancy. According to Levene's test for equality of variances, the assumption of homogeneity of variances was met ($p = .098$). There was not a statistically significant difference between the two groups with regard to effort expectancy ($t(132) = -1.969$, $p = .051$) based on the results of the independent samples t-test. While the instructors with BA degrees had a mean score of 3,65 ($SD = 0.855$), the ones with MA or PhD degrees had a mean score of 3.93 ($SD = 0.707$) (see Table 6). The 95% confidence interval indicated that the true mean difference ranged from -.556 to .001 (see Table 6). For the effort expectancy, the effect size was 0.36, pointing out that 36% of the variance regarding the instructors' perceptions on effort expectancy was explained by whether the instructors had further academic degrees or not. The results revealed that the difference between the two groups was not statistically significant; nevertheless, the instructors with MA or PhD degrees had a higher score than the ones who had BA degrees with respect to their effort expectancy.

Attitude towards using technology. Based on Levene's test for equality of variances, the assumption of homogeneity of variances was not fulfilled (p = .006); therefore, the results were evaluated based on the p value on the second row of the t-test table. According to the results of the independent samples t-test, there was not a statistically significant difference between the two groups with regard to their attitude towards using technology (t(58.527) = -.983, p = .330). The instructors who had BA degrees had a mean score of 4.07 (SD = 0.961), whereas those who had MA or PhD degrees had a mean score of 4.23 (SD = 0.644) (see Table 6). The 95% confidence interval showed that the true mean difference was between -.486 and .166 (see Table 6). The calculation of effect size (*Cohen's d* = 0.20) indicated that %20 of the variance with respect to the instructors' perceptions on attitude towards using technology was accounted for by whether the instructors had further academic degrees or not. According to the results, the difference between the two groups was not statistically significant, but the instructors with MA or PhD degrees had a higher mean score compared to those with BA degrees.

Social influence. Levene's test for equality of variances indicated that the assumption of homogeneity of variances was fulfilled (p = .989). The results of the independent samples t-test showed that there was not a statistically significant difference between the two groups with regard to social influence (t(132) = 0.278, p = .781). As indicated in Table 6, the instructors with BA degrees had a mean score of 3.15 (SD = 0.769). In contrast, those had MA or PhD degrees had a mean score of 3.12 (SD = 0.538). The 95% confidence interval showed that the true mean difference was between -.601 and -.076 (see Table 6). When the effect size was calculated, it was found to be 0.04, demonstrating that 4% of the variance in the instructors' perceptions on social influence was explained by whether the instructors

had further academic degrees or not. Although the results showed that the difference between the two groups was not statistically significant, the instructors with BA degrees had a higher mean score than the ones who had MA or PhD degrees with respect to their perceptions on social influence.

Facilitating conditions. According to Levene's test for equality of variances, the assumption of homogeneity of variances was not met (p = .003). Thus, the results were evaluated based on the p value on the second row of the t-test table. The results of the independent samples t-test showed that there was not a statistically significant difference between the two groups with regard to performance expectancy (t(60.028) = -2.578, p = .012). As shown in Table 6, the instructors who had BA degrees had a mean score of 3.14 (SD = 0.769). On the other hand, those who held MA or PhD degrees had a mean score of 3.48 (SD = 0.538). The 95% confidence interval showed that the true mean difference was between -.601 and -.076 (see Table 6). The effect size was 0.51, indicating that 51% of the variance in the instructors' perceptions on facilitating conditions was accounted for by whether the instructors had further academic degrees or not. According to the results, there was not a statistically significant difference between the two groups; however, the instructors with MA or PhD degrees had a higher mean score compared to those with BA degrees regarding their perceptions on facilitating conditions.

Self-efficacy. Levene's test for equality of variances showed that the assumption of homogeneity of variances was met (p = .143). Based on the results, there was not a statistically significant difference between the two groups with respect to their self-efficacy (t(132) = -1.914, p = .058). The instructors who had BA degrees had a mean score of 2.67 (SD = 0.538). On the other hand, those who had MA or PhD degrees had a mean score of 2.88 (SD = 0.594) (see Table 6). The 95%

confidence interval showed that the true mean difference was between -.412 and .000 (see Table 6). The effect size was 0.37, indicating that 37% of the variance in the instructors' perceptions on self-efficacy was accounted for by whether the instructors had further academic degrees or not. The results showed that although the difference between the two groups was not statistically significant regarding their perceptions on self-efficacy, the instructors with MA or PhD degrees had a higher mean score compared to the ones with BA degrees.

Anxiety. Levene's test for equality of variances showed that the assumption of homogeneity of variances was met (p = .639). The results of the independent samples t-test indicated that there was not a statistically significant difference between the two groups with regard to anxiety ($t(132) = -0.475$, p = .636). The instructors with BA degrees had a mean score of 3.82 (SD = 0.847); on the other hand, those who had MA or PhD degrees had a mean score of 3.89 (SD = 0.817) (see Table 6). The 95% confidence interval showed that the true mean difference was between -.378 and .231 (see Table 6). The effect size was 0.08, indicating that 8% of the variance in the instructors' perceptions on anxiety was explained by whether the instructors had further academic degrees or not. Based on the results, the instructors with BA degrees had a lower mean score compared to the ones with MA or PhD degrees regarding their perceptions on anxiety.

Behavioural intention to use technology. Based on Levene's test for equality of variances, the assumption of homogeneity of variances was met (p = .360). The results of the independent samples t-test showed that there was not a statistically significant difference between the two groups with regard to their behavioural intention to use technology ($t(132) = -1.463$, p = .146). Table 6 indicates that the instructors who had BA degrees had a mean score of 3.98 (SD = 0.969),

while those who held MA or PhD degrees had a mean score of 4.20 (*SD* = 0.741). The 95% confidence interval showed that the true mean difference was between -.525 and .079 (see Table 6). The effect size was 0.26, indicating that 26% of the variance in the instructors' perceptions on behavioural intention to use technology was accounted for by whether the instructors had further academic degrees or not. Although the difference between the two groups was not statistically significant, the instructors with MA or PhD degrees had a higher mean score than the ones with BA degrees regarding their perceptions on behavioural intention to use technology.

Perceptions on Technology Use Depending on Years of Teaching Experience

For the third research question, one-way ANOVA test was used in order to explore if there were any statistically significant differences among the groups of EFL instructors with different years of teaching experience regarding their perceptions on performance expectancy, effort expectancy, social influence, facilitating conditions, attitude toward using technology, self-efficacy, anxiety, and behavioural intention to use technology.

The results indicated that there was not a statistically significant difference among the groups in terms of their perceptions on attitude toward using technology ($F_{3,130} = 2.04$, $p = .111$), social influence ($F_{3,130} = 1.015$, $p = .388$), facilitating conditions ($F_{3,130} = 2.553$, $p = .058$), self-efficacy ($F_{3,130} = 0.207$, $p = .892$), and behavioural intention to use technology ($F_{3,130} = 1.943$, $p = .126$) (see Table 7).

On the other hand, according to the results, there was a statistically significant difference among the groups in terms of their perceptions on performance expectancy ($F_{3,130} = 2.955$, $p = .035$), effort expectancy ($F_{3,130} = 5.869$, $p = .001$), and anxiety ($F_{3,130} = 3.901$, $p = .010$) (see Table 7). Specifically, 6.4% of the variance in performance expectancy scores, approximately 12% of the variance in effort

expectancy scores and 8% of the variance in anxiety scores are accounted for the teaching experience groups. Multiple comparisons table was checked to find out which groups differed from each other in terms of their performance expectancy, effort expectancy, and anxiety (see Appendix F).

The instructors with 21 and more years of experience had a mean score of 3.98 (*SD* = 0.819) for their perceptions on performance expectancy, while the instructors with 6-10 years, 11-15 years, and 16-21 years of teaching experience had mean scores of 4.38 (*SD* = 0.486), 4.33 (*SD* = 0.660), and 4.39 (*SD* = 0.688), respectively.

With respect to effort expectancy, instructors with 21 and more years of experience had a mean score of 3.54 (*SD* = 0.722); however, the instructors with 6-10 years, 11-15 years, and 16-21 years of teaching experience had mean scores of 4.38 (*SD* = 0.482), 4.02 (*SD* = 0.726), and 4.01 (*SD* = 0.776), respectively. However, when multiple comparisons table was checked, it was found that the instructors who had teaching experience of 21 years and more were statistically significantly different from all the other three groups (i.e., 6-10 years, 11-15 years, and 16-21 years).

For their perceptions on anxiety, instructors with 21 and more years of experience had a mean score of 3.58 (*SD* = 0.878), the instructors with 6-10, 11-15, and 16-21 years of teaching experience had mean scores of 4.22 (*SD* = 0.471), 4.03 (*SD* = 0.713), and 4.05 (*SD* = 0.815), respectively. When compared with the rest of the instructors in the groups with 6-10 years, 11-15 years, and 16-21 years of teaching experience, the instructors with teaching experience of 21 or more years had a lower mean score with respect to their perceptions on performance expectancy as

well as their effort expectancy, whereas they had a lower score on their perceptions on anxiety.

Table 7

One-way ANOVA Results among Groups with Different Years of Teaching Experience and Perceptions on Technology Use

Dependent Variable	*df1*	*df2*	*F*	*P*	R^2	*Adjusted* R^2 *Squared*
Performance Expectancy	3	130	2.955	.035	*.064*	*.042*
Effort Expectancy	3	130	5.869	.001	.119	.099
Attitude	3	130	2.043	.111	.045	.023
Social Influence	3	130	1.015	.388	.023	.000
Facilitating Conditions	3	130	2.553	.058	.056	.034
Self-Efficacy	3	130	0.207	.892	.005	-.018
Anxiety	3	130	3.901	.010	.083	.061
Behavioural Intention	3	130	1.943	.126	.043	.021

EFL Instructors' ILTTS, FLTTS, and OLTTS Depending on Their Professional Qualifications, Degrees, and Years of Teaching Experience

In order to answer research questions four, five, and six investigating whether there were any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their ILTTS, FLTTS, and OLTTS, independent samples t-tests and one-way ANOVA tests were conducted.

ILTTS depending on EFL instructors' professional qualifications. An independent samples t-test was conducted so as to find out whether there were any statistically significant differences between EFL instructors' professional qualification groups in terms of their ILTTS, (see Table 8). According to Levene's test for equality of variances, it was determined that the assumption of homogeneity of variances was met (p = .065). The results of the independent samples t-test revealed that there was a statistically significant difference between the two groups with regard to their ILTTS ($t(91) = 2.061$, p = .042). As shown in Table 8, the instructors who had professional qualifications (i.e., ICELT, CELTA, DELTA, or any other) had a mean score of 4.39 (SD = 0.550).

On the other hand, those who did not have extra professional qualifications had a mean score of M = 4.05 (SD = 0.910). The 95% confidence interval showed that the true mean difference was between .012 and .664 (see Table 8). The effect size was 0.45, indicating that 45% of the variance in the instructors' perceptions on ILTTS was accounted for by whether the instructors had any professional qualifications or not. Based on the results, the instructors with professional qualifications had a higher mean score with respect to their ILTTS compared to those who did not obtain extra qualifications.

Table 8

Independent Samples t-test Results: Differences between EFL Instructors with Professional Qualifications (N = 80) and without Professional Qualifications (N = 54) in terms of Their ILTTS

Constructs	Groups	*M*	*SD*	*t*	*df*	*p*	95% Confidence Interval of the Difference	
							Lower	*Upper*
ILTTS	1	4.39	0.550	2.061	91	.042	*0.012*	*0.664*
	2	4.05	0.910					

Note. Group 1: Instructors with professional qualifications; Group 2: Instructors without professional qualifications

ILTTS depending on EFL instructors' degrees. In order to find out whether there were any statistically significant differences between the group of EFL instructors with BA degrees and those with MA or PhD degrees with respect to their ILTTS, an independent samples t-test was conducted (see Table 9). Levene's test for equality of variances showed that the assumption of homogeneity of variances was met (p = .316). There was not a statistically significant difference between the two groups with regard to their ILTTS ($t(132)$ = -0.524, p = .601) based on the results of the independent samples t-test. While the instructors with BA degrees had a mean score of 4.08 (SD = 0.684), the ones with MA or PhD degrees had a mean score of 4.15 (SD = 0.787) (see Table 9). The 95% confidence interval indicated that the true mean difference ranged from -.353 to .205 (see Table 9). The effect size was 0.10, pointing out that 10% of the variance regarding the instructors' perceptions on ILTTS was explained by whether the instructors had any further degrees or not. According to the results, although the difference between the two groups was not statistically significant, the instructors with MA or PhD degrees had a higher mean score compared to the ones who had BA degrees.

Table 9

Independent Samples t-test Results: Differences between EFL Instructors with BA Degrees (N = 42) or Those with MA or PhD Degrees (N = 92) in terms of Their ILTTS

Constructs	Groups	*M*	*SD*	*t*	*df*	*p*	95% Confidence Interval of the Difference	
							Lower	*Upper*
ILTTS	1	4.08	0.684	-0.524	132	.601	-0.353	0.205
	2	4.15	0.787					

Note. Group 1: Instructors with BA Degrees; Group 2: Instructors with MA or PhD degrees

ILTTS depending on EFL instructors' years of teaching experience. One-way ANOVA test was utilized so as to explore if there were any statistically significant differences among the groups of EFL instructors with different years of teaching experience regarding their ILTTS. The results indicated that there was a statistically significant difference among groups in terms of their teaching experience with respect to their ILTTS ($F_{3,130} = 3.701$, $p = .013$) (see Table 10). Therefore, in order to find out which groups were different from the others, multiple comparisons table was checked (see Appendix G). The results showed that the instructors who had teaching experience of 21 years or more ($M = 3.88$, $SD = 0.894$) had a statistically significantly lower mean score than the instructors who had 16 to 20 years of teaching experience ($M = 4.39$, $SD = 0.609$) with respect to their ILTTS (see Appendix H, Table 1). While the instructors who had teaching experience of 6-10 years had a mean score of $M = 4.34$ ($SD = 0.537$), the instructors who had 11 to 15 years of teaching experience had a mean score of $M = 4.21$ ($SD = 0.609$) with respect to their ILTTS (see Appendix H, Table 1). Approximately 8% of the variance in the

score can be accounted for by the groups with different years of teaching experience concerning their ILTTS (see Table 10).

Table 10

One-way ANOVA Results among Groups with Different Years of Teaching Experience and Their ILTTS

Dependent Variable	*df1*	*df2*	*F*	*P*	R^2	*Adjusted* R^2 *Squared*
ILTTS	3	130	3.701	.013	*.079*	*.057*

FLTTS depending on EFL instructors' professional qualifications. In order to find out if there were any statistically significant differences between EFL instructors' professional qualification groups with respect to their FLTTS, an independent samples t-test was carried out (see Table 11). Levene's test for equality of variances indicated that the assumption of homogeneity of variances was met (p = .671). Based on the results of the independent samples t-test, there was not a statistically significant difference between the two groups with regard to their FLTTS ($t(91) = 1.251$, p = .214). The instructors with professional qualifications (i.e., ICELT, CELTA, DELTA, or any other) had a mean score of 3.13 (SD = 1.206); in contrast, those without any extra professional qualifications had a lower mean score (M = 2.82, SD = 1.168) (see Table 11). The 95% confidence interval showed that the true mean difference was between -.183 and .805 (see Table 11). The effect size was 0.26, indicating that 26% of the variance in the instructors' perceptions on FLTTS was explained by whether they had any professional qualifications or not. Although it was found that the difference between the two groups was not statistically significant, the instructors with professional qualifications had a higher

mean score compared to the ones who did not have extra professional qualifications with regard to their FLTTS.

Table 11

Independent Samples t-test Results: Differences between EFL Instructors with Professional Qualifications (N = 80) and without Professional Qualifications (N = 54) in terms of Their FLTTS

Constructs	Groups	*M*	*SD*	*t*	*df*	*p*	95% Confidence Interval of the Difference	
							Lower	*Upper*
FLTTS	1	3.13	1.206	1.251	91	.214	-0.183	0.805
	2	2.82	1.168					

Note. Group 1: Instructors with professional qualifications; Group 2: Instructors without professional qualifications

FLTTS depending on EFL instructors' degrees. Whether there were any statistically significant differences between the group of EFL instructors who had BA degrees and those who had MA or PhD degrees with respect to their FLTTS was investigated by conducting an independent samples t-test (see Table 12). Levene's test for equality of variances showed that the assumption of homogeneity of variances was met (p = .522). Based on the results of the independent samples t-test, there was not a statistically significant difference between the two groups with regard to their FLTTS ($t(132) = -0.772$, p = .441). The instructors who had BA degrees had a mean score of 2.87 (SD = 1.222), whereas the ones who had MA or PhD degrees had a mean score of 3.03 (SD = 1.121) (see Table 12). The 95% confidence interval indicated that the true mean difference ranged from -.591 to .259 (see Table 12). The effect size was 0.13, indicating that 13 % of the variance regarding the instructors' perceptions on FLTTS was explained by whether the instructors had any further

degrees or not. The results revealed that the instructors who held MA or PhD degrees had a higher mean score than the ones who held BA degrees although the difference between the two groups was not statistically significant.

Table 12

Independent Samples t-test Results: Differences between EFL Instructors with BA degrees (N = 42) or Those with MA or PhD Degrees (N = 92) in terms of Their FLTTS

Constructs	Groups	*M*	*SD*	*t*	*df*	*p*	95% Confidence Interval of the Difference	
							Lower	*Upper*
FLTTS	1	2.87	1.222	-	132	.441	-0.591	0.259
	2	3.03	1.121	0.772				

Note. Group 1: Instructors with BA Degrees; Group 2: Instructors with MA or PhD degrees

FLTTS depending on EFL instructors' years of teaching experience.

One-way ANOVA test was used to find out if there were any statistically significant differences among the groups of EFL instructors with different years of teaching experience in terms of their FLTTS. According to the results, there was not a statistically significant difference among groups in terms of their teaching experience with respect to their FLTTS ($F_{3,130} = 1.496$, $p = .219$) (see Table 13). Although there was not a statistically significant difference regarding the EFL instructors' years of teaching experience and FLTTS, the instructors who had 16 to 20 years of teaching experience had a higher mean score ($M = 3.19$, $SD = 1.196$) when compared with the instructors in the rest of the group (see Appendix H, Table 2). The instructors who had 6-10 years of experience had a mean score of $M = 2.31$ ($SD = 1.163$), while those with 11 to 15 years of teaching experience had a mean score of $M = 3.08$ ($SD =$

1.031) (see Appendix H, Table 2). The ones with 21 years or more experience, on the other hand, had a mean score of *M* = 2.98 (*SD* = 1.192) with respect to their FLTTS (see Appendix H, Table 2). Around 4% of the variance in the score can be accounted for by the groups with different years of teaching experience concerning their FLTTS (see Table 13).

Table 13

One-way ANOVA Results among Groups with Different Years of Teaching Experience and Their FLTTS

Dependent Variable	*df1*	*df2*	*F*	*P*	R^2	*Adjusted* R^2 *Squared*
FLTTS	3	130	1.496	.219	*.033*	*.011*

OLTTS depending on EFL instructors' professional qualifications. To investigate whether there were any statistically significant differences between EFL instructors' professional qualification groups in terms of their OLTTS, an independent samples t-test was conducted (see Table 14). Levene's test for equality of variances showed that the assumption of homogeneity of variances was met (*p* = .333). Based on the results of the independent samples t-test, there was not a statistically significant difference between the two groups with regard to their OLTTS (*t*(91) = 0.355, *p* = .723). As shown in Table 14, the instructors who had professional qualifications (i.e., ICELT, CELTA, DELTA, or any other) had a mean score of 2.98 (*SD* = 0.664), while those who did not have extra professional qualifications had a mean score of *M* = 2.93 (*SD* = 0.782). The 95% confidence interval indicated that the true mean difference was between -.252 and .362 (see Table 14). The effect size was 0.07, indicating that 7% of the variance in the instructors' perceptions on OLTTS was accounted for by whether the instructors had

any professional qualifications or not. Although the difference between the two groups was not statistically significant, the instructors with professional qualifications had a higher mean score compared to those who did not have extra professional qualifications.

Table 14

Independent Samples t-test Results: Differences between EFL Instructors with Professional Qualifications (N = 80) and without Professional Qualifications (N = 54) in terms of Their OLTTS

Constructs	Groups	*M*	*SD*	*t*	*df*	*p*	95% Confidence Interval of the Difference	
							Lower	*Upper*
OLTTS	1	2.98	0.664	0.355	91	.723	-0.252	0.362
	2	2.93	0.782					

Note. Group 1: Instructors with professional qualifications; Group 2: Instructors without professional qualifications

OLTTS depending on EFL instructors' degrees. In order to find out if there were any statistically significant differences between the group of EFL instructors who had BA degrees and those who had MA or PhD degrees in terms of their OLTTS, independent samples t-test was conducted (see Table 15). Levene's test for equality of variances indicated that the assumption of homogeneity of variances was met (p = .067). According to the results, there was not a statistically significant difference between the two groups with regard to their OLTTS (t(132) = -1.204, p = .231). The instructors with BA degrees had a mean score of 2.84 (*SD* = 0.566), whereas the ones with MA or PhD degrees had a mean score of 3.00 (*SD* = 0.787) (see Table 15). The 95% confidence interval indicated that the true mean difference ranged from -.430 to .105 (see Table 15). The effect size was 0.07,

indicating that 7% of the variance regarding the instructors' perceptions on OLTTS was accounted for by whether the instructors had any further degrees or not. The results showed that although the difference between the instructors with BA degrees and the ones with MA or PhD degrees was not statistically significant with respect to their OLTTS, the latter had a higher mean score compared to the latter.

Table 15

Independent Samples t-test Results: Differences between EFL Instructors with BA Degrees (N = 42) or Those with MA or PhD Degrees (N = 92) in terms of Their OLTTS

Constructs	Groups	*M*	*SD*	*t*	*df*	*p*	95% Confidence Interval of the Difference	
							Lower	*Upper*
OLTTS	1	2.84	0.566	-1.204	132	.231	-0.430	0.105
	2	3.00	0.787					

Note. Group 1: Instructors with BA Degrees; Group 2: Instructors with MA or PhD degrees

OLTTS depending on EFL instructors' years of teaching experience.

One-way ANOVA test was utilized to explore whether there were any statistically significant differences among the groups of EFL instructors with different years of teaching experience regarding their OLTTS. The results showed that there was not a statistically significant difference among groups in terms of their teaching experience with respect to their OLTTS ($F_{3,130} = 1.014$, $p = .389$) (see Table 16). The difference was not statistically significant with respect to the EFL instructors' years of teaching experience and OLTTS. However, the instructors who had 16 to 20 years of teaching experience had a higher mean score ($M = 3.07$, $SD = 0.771$) when compared with the rest of the group (see Appendix H, Table 3). The instructors who had 6-10 years of

experience had a mean score of *M* = 2.61 (*SD* = 0.823), whereas those with 11 to 15 years of teaching experience had a mean score of *M* = 2.99 (*SD* = 0.651) (see Appendix H, Table 3). In contrast, the instructors who had 21 years or more experience had a mean score of *M* = 2.90 (*SD* = 0.739) regarding their OLTTS (see Appendix H, Table 3). Nearly 3% of the variance in the score can be accounted for by the groups with different years of teaching experience regarding their OLTTS (see Table 16).

Table 16

One-way ANOVA Results among Groups with Different Years of Teaching Experience and Their OLTTS

Dependent Variable	*df1*	*df2*	*F*	*P*	R^2	*Adjusted* R^2 *Squared*
OLTTS	3	130	1.014	.389	*.023*	*.05*

The Relationship between EFL Instructors' Perceptions on Technology Use and Their ILTTS, FLTTS, and OLTTS

In order to answer the last research question, a Pearson Correlation Test was conducted. Correlation coefficients were computed to determine if there was a statistically significant relationship between EFL instructors' perceptions on technology use (performance expectancy, effort expectancy, social influence, facilitating conditions, attitude toward using technology, self-efficacy, anxiety, and behavioural intention to use technology) and their ILTTS, FLTTS, and OLTTS. The scatterplots are presented in Appendix I, Figures 1, 2, and 3, respectively.

The results indicated that there was a statistically significant positive relationship between EFL instructors' perceptions on technology use and their ILTTS (r (134) = .625, r^2 = .39, p = .001) (see Appendix J, Table 1). The r values

from .50 to 1.0 show a large correlation (Pallant, 2011). Therefore, this result showed a large positive correlation with a shared variance of covariance of %39.

The relationship between EFL instructors' perceptions on technology use and their FLTTS (r (134) = -.056, r^2 = .01, p = .521) was not statistically significant. The results also revealed that the relationship between EFL instructors' perceptions on technology use and their FLTTS was negative (see Appendix J, Table 2).

With respect to the relationship between EFL instructors' perceptions on technology use and their OLTTS (r (134) = .194, r^2 = .04, p = .025), the results indicated that there was a statistically significant positive relationship (see Appendix J, Table 3). The r values ranging from .10 to .29 indicate a small correlation (Pallant, 2011). Therefore, this result showed a small positive correlation with a shared variance of covariance of %4.

Conclusion

In the current study, the researcher investigated the perceptions of EFL instructors on the use of technology in their classrooms as well as their possible language teacher selves. The study was also aimed to find out if there were statistically significant relationships between EFL instructors' perceptions on technology use and possible language teacher selves with respect to technology integration. In this chapter, the findings of the study data obtained using a survey distributed online were provided. In the next chapter, the discussion and conclusion of these findings, pedagogical implications and limitations of the study, and suggestions for further research will be presented.

CHAPTER 5: CONCLUSIONS

Introduction

In this chapter, an overview of the study is provided, and the major findings with respect to EFL instructors' perceptions on technology use and their possible language teacher selves with reference to relevant literature are discussed. Next, the implications for practice are presented, and suggestions for further research are put forward. Finally, limitations of the study are discussed.

Overview of the study

In this study, EFL instructors' perceptions on technology use in the classroom and their possible language teacher selves were investigated. In addition, whether there was a statistically significant relationship between their perceptions on technology use and their possible language teacher selves with respect to technology integration was investigated. Therefore, the following research questions were addressed in this study:

1. Are there any statistically significant differences between the EFL instructors who have professional qualifications and those who do not have any professional qualifications regarding their perceptions on:
    a. performance expectancy
    b. effort expectancy
    c. attitude towards using technology
    d. social influence
    e. facilitating conditions
    f. self-efficacy
    g. anxiety

h. behavioural intention to use technology?

2. Are there any statistically significant differences between the EFL instructors who hold BA degrees and those who hold MA or PhD degrees regarding their perceptions on:
    a. performance expectancy
    b. effort expectancy
    c. attitude towards using technology
    d. social influence
    e. facilitating conditions
    f. self-efficacy
    g. anxiety
    h. behavioural intention to use technology?
3. Are there any statistically significant differences among the groups of EFL instructors with different years of teaching experience regarding their perceptions on:
    a. performance expectancy
    b. effort expectancy
    c. attitude towards using technology
    d. social influence
    e. facilitating conditions
    f. self-efficacy
    g. anxiety
    h. behavioural intention to use technology?

4. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their ILTTS?
5. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their FLTTS?
6. Are there any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their OLTTS?
7. Is there any statistically significant relationship between EFL instructors' perceptions on technology use and their ILTTS, FLTTS, and OLTTS in the use of technology in the classroom?

This study was aimed to investigate the perceptions of 134 EFL instructors in view of the research questions mentioned above. In order to gather data, an online survey was distributed via Qualtrics platform. The items focusing on EFL instructors' perceptions on technology use were taken and adopted from Venkatesh et al. (2003). On the other hand, the items that were about their possible language teacher technology selves were prepared by the researcher of the current study. The survey started with the Informed Consent Form (see Appendix A). The items in the survey included five main sections: the items related to instructors' perceptions on technology use, their ideal language teacher technology selves, their feared language teacher technology selves, their ought-to language teacher technology selves, and demographics (see Appendix C). The quantitative data was analysed using SPSS v.25, and both descriptive and inferential statistics tests were conducted. The results were reported in accordance with the results obtained from the analyses.

Discussion of Major Findings

Some assumptions based on the current findings have been made with respect to EFL instructors' perceptions on technology use and their possible language teacher selves based on the results of the descriptive and inferential statistics. However, only a few studies in relation to the findings of the current study were included due to the scarcity of studies similar to this study.

Perceptions on Technology Use Depending on Professional Qualifications

The first research question was aimed to investigate if there were any statistically significant differences between the group of EFL instructors who had professional qualifications and those who did not have extra professional qualifications in terms of their perceptions on performance expectancy, effort expectancy, attitude towards using technology, social influence, facilitating conditions, self-efficacy, anxiety, and behavioural intention to use technology. The results showed that there was not a statistically significant difference between the two groups. However, with respect to their perceptions on performance expectancy, effort expectancy, attitude towards using technology, facilitating conditions, and behavioural intention to use technology, the instructors with professional qualifications had higher mean scores.

The fact that these instructors had an overall higher mean score regarding their performance expectancy might indicate that obtaining these qualifications might have contributed to their knowledge on integrating technology into the classroom. Therefore, they might have considered integrating technology a useful way to conduct their lessons. With respect to effort expectancy, these instructors' higher mean scores might be explained with their knowledge on technology use as well. The reason for this might be that as they have more knowledge on technology,

they consider it easy to use. Being knowledgeable about the use of technology might also have affected their attitude towards technology and might have contributed to their having a positive attitude on the use of technology. Regarding the facilitating conditions, the instructors with qualifications believe that infrastructure concerning the organizational and technical issues exist to facilitate the use of technology in their classes. The instructors think that they can get help should they need it. Also, thanks to having qualifications, they might be better able to cope with technical problems, and this might have contributed to their having a more positive attitude. All these factors, in turn, might have caused their future intention to use technology to be more than the instructors who did not have extra professional qualifications.

This finding aligns with the previous findings of the study conducted by Ertmer and Ottenbreit-Leftwich (2010). They investigated the characteristics that make it possible for teachers to utilize technology as meaningful pedagogical tools. Specifically, they looked into teachers' knowledge, self-efficacy, pedagogical beliefs and subject and school culture. They found that teacher knowledge affects teachers' decisions significantly, and that "teachers need knowledge of the technology itself" as well as the knowledge that will facilitate effective integration of technology in their classes (p. 259).

Similarly, Emre (2019) investigated EFL instructors' perceptions on the use of webinars in EFL teaching and for professional development purposes. She explored if there were any differences between the instructors depending on their previous experiences, and she concluded that there were statistically significant differences between the instructors who had prior experience with technology and with the ones who did not with respect to their effort expectancy, self-efficacy, facilitating conditions, anxiety, behavioural intention and motivation. Therefore,

having prior experience affected the way instructors perceived technology, resulting mainly from being knowledgeable and resourceful about webinars (Emre, 2019).

In this current study, the instructors who did not have extra professional qualifications had higher mean scores regarding their perceptions on social influence and self-efficacy and lower mean scores regarding their perceptions on anxiety. The reason why they had a higher mean score with respect to social influence might indicate that other people around these instructors might have an important influence on their technology integration as they lack extra qualifications and might need other people's assistance or guidance in this respect. Ertmer and Ottenbreit-Leftwich (2010) suggest that it is easier to change the views of teachers related to the use of technology through socialization with colleagues. Similarly, these instructors might be more influenced by others. Moreover, according to Venkatesh et al., social influence is one of the direct determinants of user acceptance and usage behaviour, which might explain why these instructors were more likely to be influenced by their colleagues or administrators.

The instructors who did not have extra professional qualifications had a slightly higher mean score regarding their self-efficacy and a lower mean score with respect to their anxiety. The underlying reason might be the fact that although these instructors do not have extra qualifications that might help them improve themselves professionally, and they lack the knowledge and skills to incorporate technology into their lessons without other people's help, they consider themselves proficient with regard to technology use, and thus they have high levels of self-efficacy and lower levels of anxiety. With regard to self-efficacy, Ertmer and Ottenbreit-Leftwich (2010) assert that self-efficacy by itself is insufficient for instructors' intention to use technology. They believe that teachers should also consider technology as a valuable

instructional tool. Similarly, according to Venkatesh et al. (2003), self-efficacy and anxiety, along with attitude towards use, are not direct determinants of intention. Therefore, when the results of this study are evaluated in the light of the findings of Venkatesh et al. (2003), even if the instructors who have professional qualifications have lower levels of self-efficacy and higher levels of anxiety, these variables are not considered to be direct determinants of intention.

Perceptions on Technology Use Depending on Degrees

The second research question was aimed to find out whether there were any statistically significant differences between the EFL instructors who had BA degrees and those who had MA or PhD degrees with respect to their perceptions on performance expectancy, effort expectancy, attitude towards using technology, social influence, facilitating conditions, self-efficacy, anxiety, and behavioural intention to use technology. According to the results, there was not a statistically significant difference between the instructors with BA degrees and the ones with MA or PhD degrees. However, the instructors with MA or PhD degrees had higher mean scores considering their perceptions on performance expectancy, effort expectancy, attitude towards using technology, facilitating conditions, self-efficacy, anxiety, and behavioural intention to use technology, except for social influence. The reason why these instructors had higher mean scores based on these constructs, except for anxiety, might be explained by their having these additional academic degrees and keeping themselves informed about the latest developments in the field. Although the difference in the mean score is slight with respect to anxiety, instructors with MA or PhD degrees feel more anxious about using technology in the classroom. The reason for their anxiety might be related to other factors that they cannot control regarding

technology. For instance, at times, the Internet connection might be unstable, and this might cause the instructors to feel anxious about using technology.

The instructors with BA degrees differed from the instructors with MA or PhD degrees regarding their perceptions on social influence. Their mean scores were higher compared to the instructors with MA or PhD degrees. The reason for this might be that the instructors with BA degrees might be more likely to be affected by others who influence their teaching. The people who have an impact on them might vary from the administrators of the school to their colleagues, but it suggests that with regard to technology use, these instructors are likely to be influenced by others.

These findings are similar to the findings of Teo (2011), who investigated the factors affecting teachers' intention to integrate technology within the frameworks of TAM, TPB, and UTAUT. He also aimed to build a research model including perceived usefulness, perceived ease of use, subjective norm, facilitating conditions, and attitude towards use. He concluded that perceived usefulness (i.e., performance expectancy in UTAUT), attitude towards use, and facilitating conditions directly affect instructors' behavioural intention to use technology. However, perceived ease of use (i.e., effort expectancy in UTAUT) and subjective norm (i.e., social influence in UTAUT) indirectly affected behavioural intention to use technology through attitude towards use and perceived usefulness, respectively (Teo, 2011). Except for subjective norm (i.e., social influence in UTAUT), these findings are aligned with the findings of the current study.

Koral and Akay (2017) investigated the technology acceptance level of instructors at a university in Turkey. They found that the instructors, most of whom considered themselves to be knowledgeable and resourceful about technology integration, had a level of technology acceptance that was above average. However,

the instructors believed that they needed assistance to be able to complete a task, showing their lack of self-efficacy probably as a result of not having experience and training. The findings of this study are aligned with the current study because in the current study, instructors who had MA or PhD degrees had high levels of self-efficacy as they most probably have more knowledge about technology integration in teaching English.

Perceptions on Technology Use Depending on Years of Teaching Experience

The third research question was aimed to investigate whether there were any statistically significant differences among the groups of EFL instructors with different years of teaching experience regarding their perceptions on performance expectancy, effort expectancy, attitude towards using technology, social influence, facilitating conditions, self-efficacy, anxiety, and behavioural intention to use technology. The results showed that there was not a statistically significant difference among the groups concerning their perceptions on attitude toward using technology, social influence, facilitating conditions, self-efficacy, and behavioural intention to use technology. The finding regarding self-efficacy is not aligned with the study conducted by Emre (2019), which revealed that the participants aged between 51 or more were different from the participants aged between 20 and 30 regarding their self-efficacy in using webinars. While the participants who were older had a lower mean score regarding their self-efficacy in the use of webinars, the younger participants had a higher mean score, which indicated that the increase in the age of the participants resulted in a decrease in their self-efficacy in the use of webinars.

However, there was a statistically significant difference among the groups in terms of their perceptions on performance expectancy, effort expectancy, and

anxiety. In fact, the instructors with teaching experience of 21 or more years had a lower mean score regarding their perceptions on performance expectancy and their effort expectancy compared to the ones in the groups with 6-10 years, 11-15 years, and 16-21 years of teaching experience. This might be related to the fact that the instructors with 21 years or more teaching experience might be of the opinion that the methods that they have been using in the last 21 years or more have worked very well for them, and for this reason they might not consider using technology useful. Instructors have their own 'safe' way of teaching that they have developed over the years, and they might not feel the need to change their teaching methods using something (i.e., technology) that they feel will not help them accomplish their teaching activities more quickly or will not increase their productivity. Also, some of the instructors in this teaching experience group might think consider integrating technology into language teaching difficult, so it may not be worth the effort that they will spend.

This finding aligns with the finding of the study which was carried out by Emre (2019), which revealed that as the teaching experience of instructors increased, their motivation to include webinars in their lessons was more likely to decrease. In addition, Ertmer and Ottenbreit-Leftwich (2010) assert that even if teachers do not incorporate technology into their classes, they might be of the opinion that they are doing a great job. However, they also state that even though this was the case two decades ago, it is not true anymore, and it has become essential for teachers to broaden their viewpoints to include the idea that effective teaching occurs provided that it is combined with relevant technological tools and resources.

In contrast, the instructors with 21 or more years of teaching experience had a lower score on their perceptions on anxiety than the instructors in the groups with 6-

10 years, 11-15 years, and 16-21 years of teaching experience. The difference between the instructors who had 21 or more years of teaching experience and the ones who had 16-21 years of teaching experience was more compared to the rest of the group. This might be related to the fact that as these instructors have many years of teaching experience, they might be knowledgeable about how to adapt to a new system over the years in their career. Thus, their experience in teaching facilitates their adaptation to new situations and lessens their anxiety levels with regard to technology use in the classroom. As for the instructors in the 6-10 years and 11-15 years of teaching experience groups, these instructors might be more familiar with the use of technology compared to the instructors in the 16-21 years of teaching experience group. However, they are not as experienced as the instructors with 21 years or more experience, which might account for their having more anxiety than these instructors.

EFL Instructors' ILTTS, FLTTS, and OLTTS Depending on Their Professional Qualifications, Degrees, and Years of Teaching Experience

The fourth, fifth, and sixth research questions were aimed to find out if there were any statistically significant differences among EFL instructor groups (i.e., the groups based on their professional qualifications, highest degree earned, and years of teaching experience) in terms of their ILTTS, FLTTS, and OLTTS. In the following paragraphs, the results will be presented with respect to the instructors' ILTTS, FLTTS, and OLTTS and their professional qualifications, highest degree earned, and years of teaching experience, respectively. However, there are no studies that compare EFL instructors' ILTTS, FLTTS, and OLTTS in relation to the constructs that were previously mentioned; therefore, some explanations or assumptions can be made after presenting the findings of the last research question.

EFL instructors' ILTTS, FLTTS, and OLTTS depending on professional qualifications. According to the results, there was a statistically significant difference between EFL instructors' professional qualification groups in terms of their ILTTS. The reason for this might be the fact that the instructors who are motivated to achieve their ideal language teacher selves imagine themselves as instructors who have technology integration knowledge and who have technology integration practice. In other words, they idealize themselves as being equipped with the required knowledge and the skills to use technology and as teachers who is able to put this knowledge and skills into everyday classroom use. The underlying reason behind their willingness to become such teachers might be related to their attending courses or programs that improve their professional qualifications as these courses might have helped them keep up-to-date.

With respect to their FLTTS, there was not a statistically significant difference between EFL instructors' professional qualification groups. Nevertheless, although the difference between two groups was not statistically significant, the results revealed that the instructors with professional qualifications had a higher mean score than the instructors without extra professional qualifications. The reason for this might be due to the fact that the instructors with qualifications, who also want to become the ideal language teacher selves with regard to their technology use, are afraid of becoming instructors unable to use technology in their classes. As a result, it can be said that in their effort to avoid becoming their feared language teacher selves, they become closer to their ideal language teacher selves.

When it comes to the perceptions of the instructors regarding their OLTTS, the difference between the two groups was not statistically significant. However, the instructors with professional qualifications had a higher mean score compared to

those who did not have extra professional qualifications. This may indicate that the instructors with professional qualifications feel themselves more accountable to the administrators, their colleagues, or their students. Also, having these qualifications might have caused them to feel pressure to incorporate technology into their classes. Therefore, they might think that they need to meet the expectations of others in order to become the instructors they believe they ought to become.

EFL instructors' ILTTS, FLTTS, and OLTTS depending on degrees.

The results showed that there was not a statistically significant difference between the group of EFL instructors with BA degrees and those with MA or PhD degrees with regard to their ILTTS, OLTTS, and FLTTS. However, the instructors who had MA or PhD degrees had a higher mean score than the ones who had BA degrees only. This could be due to the fact that the instructors with MA or PhD degrees have further academic careers and the latest information regarding their field. As part of their studies, these instructors conducted research and read many articles, books, and research studies to complete their degrees. Inevitably, this might have impacted their desire to continue to learn as part of their career, too, and impacted the ideal language teacher selves that they conceptualized, and the feared language teacher selves that they want to avoid becoming. Their ideal language teacher selves are instructors who are adept at using technology in the classroom while the instructors who they are afraid of becoming are the ones who cannot integrate technology into their classes. In the same vein, the instructors with MA or PhD degrees are the ones who more likely to be affected by the outside factors that extrinsically motivate them to become the instructors that they think they ought to become. This might be related to the fact that these instructors might be more receptive to expectations of others or that they might be more open to change that is imposed on them by others.

EFL instructors' ILTTS, FLTTS, and OLTTS depending on years of teaching experience. According to the results, there was a statistically significant difference among groups in terms of their teaching experience with respect to their ILTTS. Specifically, the results showed that the instructors with teaching experience of 21 years or more had statistically significantly lower mean scores compared to the instructors with 16 to 20 years of teaching experience regarding their ILTTS. This might result from the fact that the instructors with teaching experience of 21 years or more might be less motivated to become language instructors who are good at integrating technology into their classes. They may not conceptualize themselves as instructors who integrate technology into their lessons despite the benefits it offers because the ideal language teacher that they imagine is not an instructor with technology integration knowledge or practice.

Regarding the EFL instructors' FLTTS and OLTTS, the results showed that there was not a statistically significant difference among groups in terms of their teaching experience. However, the instructors with 16 to 20 years of teaching experience had the highest mean score compared to the instructors in the rest of the teaching experience groups regarding both FLTTS and OLTTS. Especially their score was higher when compared to the instructors with 6-10 years of teaching experience. This might be related to the profile of the instructors in the 6-10 years of teaching experience groups, as they are members of a younger generation, it is likely that they use technology more. Thus, they are less likely to be afraid of becoming instructors who cannot integrate technology into their teaching or to be affected by the others' ideas related to the teachers they ought to become.

The Relationship between EFL Instructors' Perceptions on Technology Use and Their ILTTS, FLTTS, and OLTTS

The last research question was aimed to find out whether there was any statistically significant relationship between EFL instructors' perceptions on technology use and their ILTTS, FLTTS, and OLTTS in the use of technology in the classroom. According to the results, there was a statistically significant and a large positive correlation between EFL instructors' perceptions on technology use and their ILTTS. This finding indicates that the instructors' conceptualization of their ideal language teacher selves as teachers who use technology in language teaching is closely associated with their having a positive opinion about technology use in the classroom. Thus, when instructors have ideal language teacher selves adept at incorporating technology into their lessons, these instructors are also more prone to view technology integration positively. This, in turn, may result in these instructors' integrating technology more in their lessons.

On the other hand, the relationship between EFL instructors' perceptions on technology use and their FLTTS was not statistically significant. In fact, the relationship between their perceptions on technology use and their FLTTS was negative. This finding implies that in order to avoid becoming the instructors that they are afraid of becoming, these instructors' attitude to technology use is more likely to be positive, and thus they might use it more in their classes. Therefore, in order to refrain from becoming instructors who are unable to use technology in language teaching, these instructors are likely to use technology more.

Finally, there was a statistically significant and a small positive correlation between EFL instructors' perceptions on technology use and their OLTTS. Based on this finding, the instructors who conceptualize themselves as instructors using

technology due to external factors are likely to incorporate technology into their lessons as they also have a positive attitude towards technology. In other words, the main motivation behind these instructors' use of technology is related to outside factors.

According to Kubanyiova (2009), teacher conceptual change is "a function of the interplay among the multiple identity goals that language teachers adopt in their educational and sociocultural contexts and the dissonance between the teachers' actual and desired future selves" (p. 314). In other words, teachers' goals related to their identity are affected by the educational and sociocultural settings that they are in as well as the imbalance between their ideal future selves, and it is this dissonance that causes the teachers to be motivated to take action. In addition, Hiver (2013) examined the roles of possible language teacher selves in the teacher development preferences of seven teachers. He found that each type of possible selves has a significant function in the initiation and maintenance of teachers' professional development. When the teachers whose feared language teacher self was central to their working self-concept, overcoming the inadequacies of the self was the most significant driving force for them (Hiver, 2013). However, he stated that when the teachers whose ideal language teacher self was the most important component of their working self-concept, these teachers aimed to enhance the self. They also strove to increase the harmony between their actual language teacher selves and their ideal language teacher selves (Hiver, 2013). The findings of these two studies align with the findings of the current study because when instructors conceptualize their ideal language teacher selves as teachers with technology integration knowledge and skills and when they want to avoid becoming their feared language teacher selves, it is highly probable that they will integrate technology into their lessons so as to balance

their current selves and to approach their ideal future selves. In other words, this imbalance between their current selves and their ideal future selves is likely to be the driving force behind the instructors' motivation to incorporate technology into their lessons.

Implications for Practice

The findings of this study indicate important pedagogical implications for practice, especially for administrators and teacher educators. To start with, instructors should be encouraged to pursue further academic degrees or professional qualifications, and when they do, they should be supported in their endeavours to develop themselves in their respective fields. When instructors obtain MA or PhD degrees or professional qualifications, they are likely to become more knowledgeable and resourceful regarding the skills that are required to integrate technology into their classes, which increases their behavioural intention to incorporate technology into their lessons. Also, the image of the ideal language teacher selves that the instructors create in their minds, which will have an impact on their motivation to integrate technology into their teaching, is likely to be altered with the help of obtaining further academic degrees or professional qualifications. If they formulate the ideal language teacher selves as teachers equipped with the knowledge and skills to use technology in their lessons, they will be more motivated to do so. Therefore, institutions should consider encouraging their instructors to enrol in MA or PhD degree programs or courses or programs to obtain professional qualifications.

Second, institutions might consider offering in-service training programs or workshops in order to help instructors become acquainted with technology integration in language teaching. Such professional development activities might also help diminish the anxiety levels of instructors who have less than 20 years of

teaching experience. In addition, attending professional development activities might bring about a change in the teachers that they ideally want to become and help them visualize their ideal language teacher selves as teachers who is good at integrating technology into teaching English. Tanış and Dikilitaş (2018) believe that professional development activities are vital to enhance the quality of teachers and to help them update their knowledge, skills, and practices. In this way, as instructors will feel themselves better equipped with knowledge on technology integration, chances that they will feel less anxious and more adept at using technology will increase.

Last, administrators can organize best-practice sharing sessions on a regular basis so that the instructors can share their ideas and create a community of practice. In such communities, instructors can share their worries, difficulties, or interest in a topic in addition to deepening their knowledge and expertise in a certain field by participating in meetings or by communicating with each other regularly (Wenger, McDermott, & Snyder, 2002). The findings of the study revealed that the instructors who hold neither extra professional qualifications nor MA or PhD degrees are more likely to be influenced by those who have an influence on them. By creating a community of practice, it is also possible to encourage these instructors to start using technology in their teaching. Therefore, professional development activities that are followed with the establishment of a community of practice might help institutions to facilitate instructors' use of technology in language teaching.

The importance of being equipped with technology integration knowledge has recently proved to be of great importance due to the COVID-19 global pandemic, which has created not only a global health crisis, but a global learning crisis as well. According to UNESCO (2020), 91% of the world's student population is affected

due to the nationwide closures. To mitigate the adverse impact of these closures, many schools, from K-12 to universities, had to move to online education. According to The World Bank (2020), "while most of the faculty members are active online, many have not taught in online mode before this crisis" (p. 7). Although this quick move to online education might have caused some instructors to feel anxious, they 'involuntarily' adapted to teaching online either through trial and error or with some guidance or training offered by their institutions. This situation might have caused a change in instructors' perceptions related to both using technology in the classroom and their possible language teacher selves. As instructors have to teach online until the lockdown ends, they will be well-acquainted with the use of technology in teaching, and even after the pandemic ends, they might prefer to teach with technology because their perceptions of an ideal teacher might have changed as well.

In order to support instructors in this process and to help them be ready for the situations that cannot be unforeseen, it is essential that instructors have the knowledge and skills that they need to be able to use technology in teaching by providing them with training opportunities. In this way, it can also be assured that instructors will develop a crucial 21st century skill, namely information and communication technologies (ICT) literacy, which is a skill students are expected to acquire as well. As a result of this, institutions may be better prepared for any crisis that may arise and require them to carry out instruction using technology in addition to increasing the effectiveness of their instruction.

Implications for Further Research

Based on the findings of the current study, several suggestions can be put forward concerning future research. First of all, an experimental study can be carried out. In the institution where the current study was done, the number of instructors

who do not have further academic degrees is 42, while the number of instructors without additional professional qualifications is 54. After filling in the questionnaire for the actual study, these instructors can be offered professional development activities that focus on technology integration in language teaching. After these activities, they can fill in the questionnaire and the differences in these instructors' perceptions on technology use and their possible language teacher selves before and after the professional development activities can be investigated. Alternatively, to acquire in-depth information on the instructors' perceptions on technology use and their possible language teacher selves by conducting semi-structured interviews with them, a mixed-methods design can be adopted.

Limitations

There are certain limitations of this study suggesting that its findings need to be interpreted cautiously. First of all, this study was conducted with 134 instructors teaching at a public university in Turkey. Although this number represented a large portion of the instructors teaching at the institution where there were 186 instructors when the study was conducted, the findings of the study do not reflect all the instructors' perceptions in that particular institution. Thus, it is necessary to consider the fact that the results of a similar study might vary depending on context or time prior to generalizing the findings of this study. Also, the fact that instructors who applied for a teaching position were required to have an MA degree as of November 9, 2018 should also be taken into consideration while generalizing the findings.

The second limitation of the current study is related to its design. As this study had a quantitative research design, the perceptions of instructors regarding technology use and their possible language teacher selves were examined through a survey in which the participants rated their opinions on a 5-point Likert scale. The

researcher could have obtained an in-depth perspective of the instructors by either adding open-ended questions or conducting semi-structured interviews with the instructors. Adding these open-ended questions or interviews to the study would have enabled the researcher to triangulate the data, which would have reflected a better picture of instructors' perceptions on technology use and their possible language teacher selves.

Another limitation of the study is related to the survey that was used. The items about the EFL instructors' perceptions on technology use were adapted from Venkatesh et al. (2003), and it is a survey that is known to have high reliability in literature (Teo, 2011). However, the items on the possible language teacher selves were designed by the researcher herself. Although the survey was piloted with 38 instructors and statistical procedures were carried out for factor analysis and item reliability, it is advisable that researchers who may want to consider using these items should also conduct similar procedures. Also, what technology encompasses was not defined in the survey that was distributed to the instructors, and the participants might have had varying opinions regarding technology. This might have affected their answers, which might be regarded as a limitation of this study.

The final limitation to this study is that there is not enough literature to support the findings of this study. Therefore, previous literature could be used only to a certain extent, and it was not enough to make generalizations concerning the findings of the study.

Conclusion

This study investigated EFL instructors' perceptions on technology use and their possible language teacher selves. Its aims were to examine EFL instructors' perceptions on technology use and their possible language teacher selves in relation

to their professional qualification, degrees, and teaching experience and to investigate the relationship between EFL instructors' perceptions on technology use and their possible language teacher selves. The results revealed that the instructors with professional qualifications and the ones with MA or PhD degrees had more intention to use technology in their classes, resulting from having higher performance and effort expectancy and having a positive attitude towards technology integration and facilitating conditions. Experienced instructors with a teaching experience of 21 years or more, however, had lower performance and effort expectancy, affecting their intention to use technology negatively. The results also showed that there is a positive relationship between the EFL instructors' ILTTS and their perceptions on technology use, especially on the instructors with professional qualifications and MA or PhD degrees. Despite the insufficient amount of support from the literature, in accordance with the findings of this study, it is possible to reach the conclusion that participating in activities that help instructors develop their knowledge and skills in their relative fields may encourage them to integrate technology in their classes due to their impact on the instructors' knowledge and skills as well as the ideal language teacher selves that they conceptualize.

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APPENDICES

Appendix A

Informed Consent Form

Dear Colleague,

This study is designed to explore instructors' perceptions on technology use and their possible selves in the use of technology in the classroom. To that end, your careful completion of the surveys will contribute greatly to obtaining real data, which is crucial for more accurate findings. Upon the completion of surveys, you may be asked to participate in an interview, which will take place at a convenient time and place for you, and it will be tape-recorded. I guarantee that all information and data from the surveys and the answers from the follow-up interviews will be stored safely and will not be shared with others in any way in which the participants' names or individual responses could be identified. Additionally, in all presented and published data resulting from the research, your responses will be aggregated with responses from other participants to assure protection of your identity. Please be informed that your participation is completely voluntary. You may withdraw from this study at any time for any reason without any explanation and/or without any penalty. You may choose not to answer any question for any reason.

Thank you very much in advance for your invaluable time and cooperation and if you have any questions about this research project, or would like more information, please contact my thesis supervisor or me at the e-mail addresses below:

hilalpeker@utexas.edu
ilgin.yasar@bilkent.edu.tr
Derya Ilgın Yaşar
MA TEFL Student
Graduate School of Education
Bilkent University, Ankara

I agree to participate in this study:

☐ Yes

☐ No

Appendix B

Pilot Questionnaire

QUESTIONNAIRE ON EFL INSTRUCTORS' PERCEPTIONS ON THE USE OF TECHNOLOGY

The items in this questionnaire are adapted from Venkatesh, Morris, Davis and Davis (2003).

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Please read the statements below and choose the most appropriate response for you.					
Performance Expectancy					
1) I would find integrating technology into my classes useful.					
2) Using technology in my classes would enable me to accomplish my teaching activities more quickly.					
3) Using technology in my classes would increase my productivity.					
Effort Expectancy					
4) My interaction with technology use in my classes would be clear and understandable.					
5) It would be easy for me to become skillful at using technology in my classes.					
6) I would find technology easy to use in my classes.					
7) Learning to use technology in my classes is easy for me.					
Attitude towards Using Technology					
8) Using technology in my classes is a good idea.					
9) Using technology in my classes makes work more interesting.					

10) Using technology in my classes is fun.					
11) I like using technology in my classes.					
Social Influence					
12) People who influence my teaching think that I should use technology in my classes.					
13) People who are important to me think that I should use technology in my classes.					
14) The administrators at my institution have been helpful in the use of technology in my classes.					
15) In general, my institution has supported the use of technology in teaching.					
Facilitating Conditions					
16) I have the resources necessary to use technology in my classes.					
17) I have the knowledge necessary to use technology in my classes.					
18) Using technology is compatible with other techniques that I use in my classes.					
19) A specific person (or group) is available for assistance with difficulties regarding technology use in my classes.					
Self-Efficacy					
20) I could complete a job or task using technology in my classes if there was no one around me to tell me what to do as I go.					
21) I could complete a job or task using technology in my classes if I could call someone for help if I got stuck.					
22) I could complete a job or task using technology in my classes if I had a lot of time to complete the job for which the software was provided.					
23) I could complete a job or task using technology in my classes if I had just the built-in help facility for assistance.					

Anxiety					
24) I feel anxious about using technology in my classes.					
25) It scares me to think that I could lose a lot of information while using technology in my classes by hitting the wrong key or clicking on the wrong link.					
26) I hesitate to use technology in my classes for fear of making mistakes I cannot correct.					
27) The use of technology in my classes is somewhat intimidating to me.					
Behavioral Intention to Use Technology					
28) I intend to use technology in my classes in the future.					
29) I predict I will use technology in my classes in the future.					
30) I plan to use technology in my classes in the future.					

QUESTIONNAIRE ON EFL INSTRUCTORS' POSSIBLE LANGUAGE

TEACHER TECHNOLOGY SELVES

The items in this questionnaire are developed by the researcher herself.

	Very untrue of me	**Untrue of me**	**Neither true nor untrue**	**True of me**	**Very true of me**
Please use the first line written in bold as the start of each item in this section, and choose the response that indicates how true each statement is for you.					
IDEAL LANGUAGE TEACHER TECHNOLOGY SELVES					
I would like to become a language teacher…					
1) who is adept at using technology in the classroom					
2) who integrates technology into his/her lessons regularly					
3) whose students enjoy his/her lessons that integrate technology					

4) who is admired by his/her students due to his/her skills in adapting various types of technology					
5) who is knowledgeable about integrating technological tools/applications to his/her classrooms					
6) who adds variety to his/her teaching by using technology in his/her classrooms					
7) who meets the needs of students who have different learning styles by using technology					
8) who saves resources (paper, time, etc.) by using technology in the classroom					
9) who reinforces learner autonomy by designing tasks that require students to use technology outside the classroom					
10) who gives opportunities to students for revising course content by assigning them online tasks that require technology use					
11) who presents new content (grammar, vocabulary, reading, etc.) by using technology					
12) who can draw and maintain students' interest in the lesson by integrating technology into lessons					
Please use the first line written in bold as the start of each item in this section, and choose the response that indicates how true each statement is for you.					
FEARED LANGUAGE TEACHER TECHNOLOGY SELVES					
I am afraid of becoming a language teacher…					
13) who is uncomfortable using technology in the classroom					
14) whose students find his/her lessons boring due to not adding variety to his/her lessons by using technology					
15) who is criticized by his/her students due to his/her lack of technological skills					
16) who is not up-to-date with recent developments in the use of technology in teaching					

17) who cannot address different learning styles by using technology					
18) who wastes resources such as paper and time due to not using technological tools/applications					
19) who revises what is taught in lessons by distributing handouts or by using the board only					
20) whose lessons are monotonous due to using the same technological tools all the time					
21) who does not adapt the course materials (handouts, coursebooks etc.) so that technology is integrated into the lessons					
22) whose students are demotivated to participate in the lesson without technology integration					
Please use the first line written in bold as the start of each item in this section, and choose the response that indicates how true each statement is for you.					
OUGHT-TO LANGUAGE TEACHER TECHNOLOGY SELVES					
I think I ought to/have to become a language teacher…					
23) who uses a variety of technological tools in his/her lessons because of institutional requirements					
24) who uses a variety of technological applications/tools in a competent manner because of his/her colleagues' expectations					
25) who brings games/videos/interactive materials into his/her classes because of his/her students' expectations					
26) who assigns online quizzes/supplementary material to his/her students because of students' expectations					
27) who integrates technology into his/her lessons due to hearing about successful technology integration in his/her colleagues' classes					

28) who integrates technology into his/her lessons to avoid colleagues' prejudiced opinions of not being an up-to-date teacher					
29) who integrates technology into his/her classes because the administrators provide all the necessary equipment (e.g. laptop computers in all classes, wireless Internet connection etc.)					
30) who integrates technology into his/her classes because all the homework, class materials, and course materials are uploaded on the Internet by the administrators					
31) who uses social media for language teaching purposes because of students' expectations					

Background Information

Instructions: Please indicate your response to the following questions by checking the appropriate circles:

1. What is your age?
   - o 21-30
   - o 31-40
   - o 41-50
   - o 51 and over
2. What is your gender?
   - o Female
   - o Male
   - o Other

3. What is the highest degree that you have completed?
    - Bachelors
    - Master's
    - Doctorate
4. Do you have any other qualifications? (CELTA, ICELT, DELTA, etc.) Please choose the most recent one that you have completed.
    - CELTA
    - ICELT
    - DELTA
    - Other
5. How long have you been teaching English for?
    - 1-5 years
    - 6-10 years
    - 11-15 years
    - 16-20 years
    - 21 years and over
6. Which level are you teaching this semester?
    - Pre-intermediate
    - Lower-Intermediate
    - Intermediate
    - Upper-Intermediate
    - Advanced
    - Repeat

Appendix C

Actual Study Questionnaire

QUESTIONNAIRE ON EFL INSTRUCTORS' PERCEPTIONS ON THE USE OF TECHNOLOGY

The items in this questionnaire are adapted from Venkatesh, Morris, Davis and Davis (2003).

	Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**
Please read the statements below and choose the most appropriate response for you.					
Performance Expectancy					
1) I would find integrating technology into my classes useful.					
2) Using technology in my classes would enable me to accomplish my teaching activities more quickly.					
3) Using technology in my classes would increase my productivity.					
Effort Expectancy					
4) My interaction with technology use in my classes would be clear and understandable.					
5) It would be easy for me to become skillful at using technology in my classes.					
6) I would find technology easy to use in my classes.					
7) Learning to use technology in my classes is easy for me.					
Attitude towards Using Technology					
8) Using technology in my classes is a good idea.					
9) Using technology in my classes makes work more interesting.					

10) Using technology in my classes is fun.					
11) I like using technology in my classes.					
Social Influence					
12) People who influence my teaching think that I should use technology in my classes.					
13) People who are important to me think that I should use technology in my classes.					
14) The administrators at my institution have been helpful in the use of technology in my classes.					
15) In general, my institution has supported the use of technology in teaching.					
Facilitating Conditions					
16) I have the resources necessary to use technology in my classes.					
17) I have the knowledge necessary to use technology in my classes.					
18) Using technology is compatible with other techniques that I use in my classes.					
19) A specific person (or group) is available for assistance with difficulties regarding technology use in my classes.					
Self-Efficacy					
20) I could complete a job or task using technology in my classes if there was no one around me to tell me what to do as I go.					
21) I could complete a job or task using technology in my classes if I could call someone for help if I got stuck.					
22) I could complete a job or task using technology in my classes if I had a lot of time to complete the job for which the software was provided.					
Anxiety					
23) I feel anxious about using technology in my classes.					

24) It scares me to think that I could lose a lot of information while using technology in my classes by hitting the wrong key or clicking on the wrong link.					
25) I hesitate to use technology in my classes for fear of making mistakes I cannot correct.					
26) The use of technology in my classes is somewhat intimidating to me.					
Behavioral Intention to Use Technology					
27) I intend to use technology in my classes in the future.					
28) I predict I will use technology in my classes in the future.					
29) I plan to use technology in my classes in the future.					

QUESTIONNAIRE ON EFL INSTRUCTORS' POSSIBLE LANGUAGE

TEACHER TECHNOLOGY SELVES

The items in this questionnaire are developed by the researcher herself.

	Very untrue of me	**Untrue of me**	**Neither true nor untrue**	**True of me**	**Very true of me**
Please use the first line written in bold as the start of each item in this section, and choose the response that indicates how true each statement is for you.					
IDEAL LANGUAGE TEACHER TECHNOLOGY SELVES					
I would like to become a language teacher…					
32) who is adept at using technology in the classroom					
33) who integrates technology into his/her lessons regularly					
34) whose students enjoy his/her lessons that integrate technology					
35) who is admired by his/her students due to his/her skills in adapting various types of technology					

36) who is knowledgeable about integrating technological tools/applications to his/her classrooms					
37) who adds variety to his/her teaching by using technology in his/her classrooms					
38) who meets the needs of students who have different learning styles by using technology					
39) who saves resources (paper, time, etc.) by using technology in the classroom					
40) who reinforces learner autonomy by designing tasks that require students to use technology outside the classroom					
41) who gives opportunities to students for revising course content by assigning them online tasks that require technology use					
42) who presents new content (grammar, vocabulary, reading, etc.) by using technology					
43) who can draw and maintain students' interest in the lesson by integrating technology into lessons					
Please use the first line written in bold as the start of each item in this section, and choose the response that indicates how true each statement is for you.					
FEARED LANGUAGE TEACHER TECHNOLOGY SELVES					
I am afraid of becoming a language teacher…					
44) who is uncomfortable using technology in the classroom					
45) whose students find his/her lessons boring due to not adding variety to his/her lessons by using technology					
46) who is criticized by his/her students due to his/her lack of technological skills					
47) who is not up-to-date with recent developments in the use of technology in teaching					
48) who cannot address different learning styles by using technology					

49) who wastes resources such as paper and time due to not using technological tools/applications					
50) who revises what is taught in lessons by distributing handouts or by using the board only					
51) whose lessons are monotonous due to using the same technological tools all the time					
52) who does not adapt the course materials (handouts, coursebooks etc.) so that technology is integrated into the lessons					
53) whose students are demotivated to participate in the lesson without technology integration					
Please use the first line written in bold as the start of each item in this section, and choose the response that indicates how true each statement is for you.					
OUGHT-TO LANGUAGE TEACHER TECHNOLOGY SELVES					
I think I ought to/have to become a language teacher…					
54) who uses a variety of technological tools in his/her lessons because of institutional requirements					
55) who uses a variety of technological applications/tools in a competent manner because of his/her colleagues' expectations					
56) who brings games/videos/interactive materials into his/her classes because of his/her students' expectations					
57) who assigns online quizzes/supplementary material to his/her students because of students' expectations					
58) who integrates technology into his/her lessons due to hearing about successful technology integration in his/her colleagues' classes					
59) who integrates technology into his/her lessons to avoid colleagues' prejudiced opinions of not being an up-to-date teacher					

60) who integrates technology into his/her classes because the administrators provide all the necessary equipment (e.g. laptop computers in all classes, wireless Internet connection etc.)					
61) who integrates technology into his/her classes because all the homework, class materials, and course materials are uploaded on the Internet by the administrators					
62) who uses social media for language teaching purposes because of students' expectations					

Background Information

Instructions: Please indicate your response to the following questions by checking the appropriate circles:

1. What is your age?
   - o 21-30
   - o 31-40
   - o 41-50
   - o 51 and over
2. What is your gender?
   - o Female
   - o Male
   - o Other
3. What is the highest degree that you have completed?
   - o Bachelors
   - o Master's
   - o Doctorate

4. Do you have any other qualifications? (CELTA, ICELT, DELTA, etc.) Please choose the most recent one that you have completed.
    - CELTA
    - ICELT
    - DELTA
    - Other
5. How long have you been teaching English for?
    - 1-5 years
    - 6-10 years
    - 11-15 years
    - 16-20 years
    - 21 years and over
6. Which level are you teaching this semester?
    - Pre-intermediate
    - Lower-Intermediate
    - Intermediate
    - Upper-Intermediate
    - Advanced
    - Repeat

Appendix D

Factor Analysis

Table 1

Total Variance Explained for ILTTS

Component	Initial Eigenvalues			Extraction Sums of Squared Loading			Rotation Sums of Squared Loadings Total
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	8.259	68.821	68.821	8.259	68.821	68.821	7.355
2	1.439	11.993	80.814	1.439	11.993	80.814	5.986
3	.581	4.838	85.652				
4	.450	3.748	89.400				
5	.325	2.706	92.106				
6	.282	2.351	94.457				
7	.205	1.708	96.166				
8	.131	1.091	97.256				
9	.122	1.015	98.271				
10	.093	.771	99.042				
11	.077	.640	99.682				
12	.038	.318	100.000				

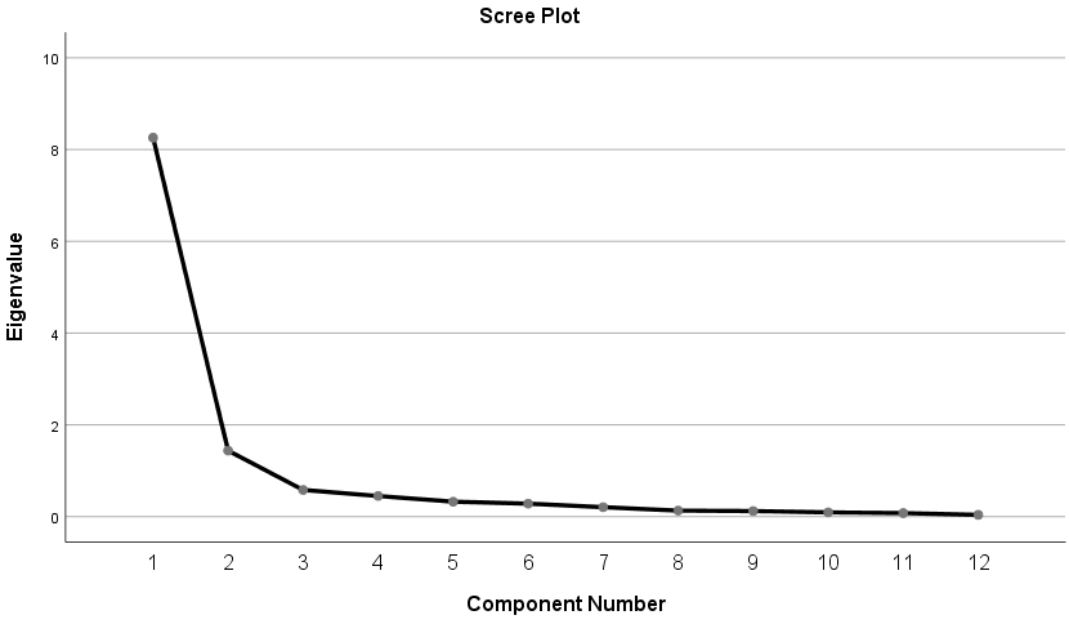

Figure 1. Scree plot for ILTTS

Table 2

Communalities for ILTTS

I would like to become a language teacher…	Initial	Extraction
who is adept at using technology in the classroom	1.000	.836
who integrates technology into his/her lessons regularly	1.000	.890
whose students enjoy his/her lessons that integrate technology	1.000	.907
who is admired by his/her students due to his/her skills in adapting various types of technology	1.000	.791
who is knowledgeable about integrating technological tools/applications to his/her classrooms	1.000	.876
who adds variety to his/her teaching by using technology in his/her classrooms	1.000	839
who meets the needs of students who have different learning styles by using technology	1.000	.709

Table 2 (cont'd)

Communalities for ILTTS

I would like to become a language teacher…	Initial	Extraction
who saves resources (paper, time, etc.) by using technology in the classroom	1.000	.732
who reinforces learner autonomy by designing tasks that require students to use technology outside the classroom	1.000	.890
who gives opportunities to students for revising course content by assigning them online tasks that require technology use	1.000	.857
who presents new content (grammar, vocabulary, reading, etc.) by using technology	1.000	.633
who can draw and maintain students' interest in the lesson by integrating technology into lessons	1.000	.739

Table 3

Structure Matrix for ILTTS

	Component	
I would like to become a language teacher…	1	2
who is adept at using technology in the classroom	.907	.596
who integrates technology into his/her lessons regularly	.943	.488
whose students enjoy his/her lessons that integrate technology	.939	.383
who is admired by his/her students due to his/her skills in adapting various types of technology	.886	.429
who is knowledgeable about integrating technological tools/applications to his/her classrooms	.881	.748

Table 3 (cont'd)

Structure Matrix for ILTTS

I would like to become a language teacher…	Component	
	1	2
who adds variety to his/her teaching by using technology in his/her classrooms	.785	.826
who meets the needs of students who have different learning styles by using technology	.684	.786
who saves resources (paper, time, etc.) by using technology in the classroom	.664	.816
who reinforces learner autonomy by designing tasks that require students to use technology outside the classroom	.477	.942
who gives opportunities to students for revising course content by assigning them online tasks that require technology use	.433	.922
who presents new content (grammar, vocabulary, reading, etc.) by using technology	.776	.574
who can draw and maintain students' interest in the lesson by integrating technology into lessons	.810	.686

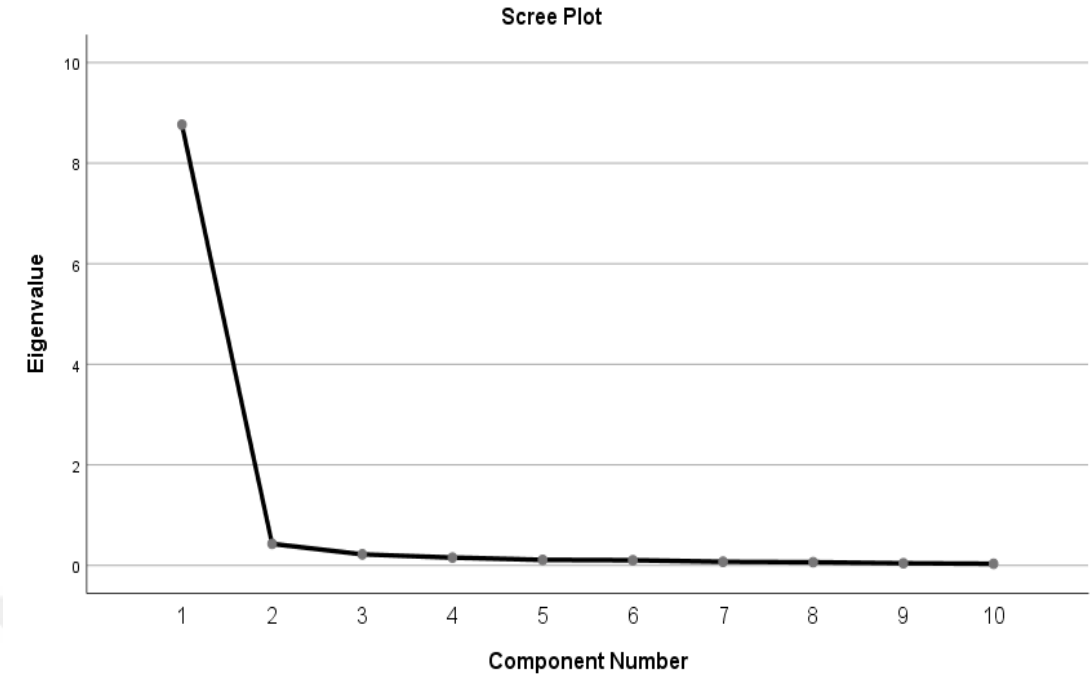

Figure 2. Scree plot for FLTTS

Table 4

Total Variance Explained for FLTTS

Component	Initial Eigenvalues			Extraction Sums of Squared Loading		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.766	87.661	87.661	8.766	87.661	87.661
2	.430	4.304	91.965			
3	.221	2.210	94.175			
4	.156	1.560	95.735			
5	.111	1.105	96.840			
6	.102	1.025	97.865			
7	.730	.730	98.594			

Table 4 (cont'd)

Total Variance Explained for FLTTS

Component	Initial Eigenvalues			Extraction Sums of Squared Loading		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
8	.063	.634	99.228			
9	.044	.440	99.669			
10	.033	.331	100.000			

Table 5

Communalities for FLTTS

I am afraid of becoming a language teacher…	Initial	Extraction
who is uncomfortable using technology in the classroom	1.000	.807
whose students find his/her lessons boring due to not adding variety to his/her lessons by using technology	1.000	.888
who is criticized by his/her students due to his/her lack of technological skills	1.000	.903
who is not up-to-date with recent developments in the use of technology in teaching	1.000	.910
who cannot address different learning styles by using technology	1.000	.883

Table 5 (cont'd)

Communalities for FLTTS

I am afraid of becoming a language teacher…	Initial	Extraction
who wastes resources such as paper and time due to not using technological tools/applications	1.000	.893
who revises what is taught in lessons by distributing handouts or by using the board only	1.000	.730
whose lessons are monotonous due to using the same technological tools all the time	1.000	.909
who does not adapt the course materials (handouts, coursebooks etc.) so that technology is integrated into the lessons whose students are demotivated to participate in the lesson without technology integration	1.000	.911
whose students are demotivated to participate in the lesson without technology integration	1.000	.932

Table 6

Total Variance Explained for OLTTS

Component	Initial Eigenvalues			Extraction Sums of Squared Loading			Rotation Sums of Squared Loadings Total
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	5.305	58.949	58.949	5.305	58.949	58.949	4.902
2	1.175	13.056	72.006	1.175	13.056	72.006	3.235
3	.807	8.969	80.974				
4	.487	5.416	86.390				
5	.402	4.462	90.852				
6	.326	3.625	94.477				
7	.209	2.320	96.797				
8	.174	1.928	98.725				
9	.115	1.275	100.000				

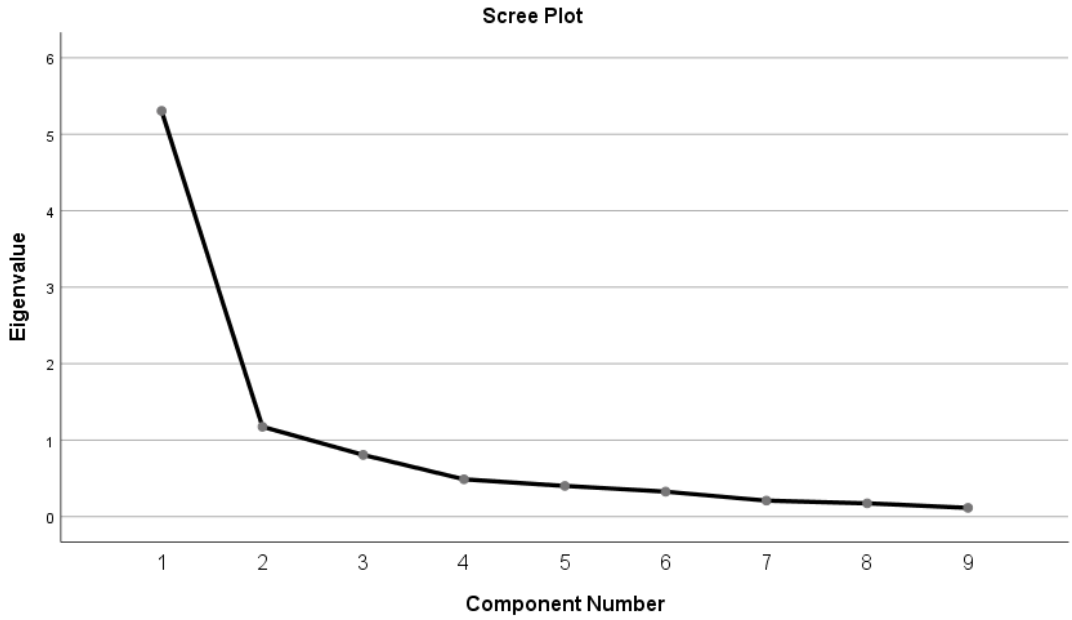

Figure 3. Scree plot for OLTTS

Table 7

Communalities for OLTTS

I am afraid of becoming a language teacher…	Initial	Extraction
who uses a variety of technological tools in his/her lessons because of institutional requirements	1.000	.686
who uses a variety of technological applications/tools in a competent manner because of his/her colleagues' expectations	1.000	.752
who brings games/videos/interactive materials into his/her classes because of his/her students' expectations	1.000	.886
who assigns online quizzes/supplementary material to his/her students because of students' expectations	1.000	.850
who integrates technology into his/her lessons due to hearing about successful technology integration in his/her colleagues' classes	1.000	.689

Table 7 (cont'd)

Communalities for OLTTS

I am afraid of becoming a language teacher…	Initial	Extraction
who integrates technology into his/her lessons to avoid colleagues' prejudiced opinions of not being an up-to-date teacher	1.000	.727
who integrates technology into his/her classes because the administrators provide all the necessary equipment (e.g. laptop computers in all classes, wireless Internet connection etc.)	1.000	.647
who integrates technology into his/her classes because all the homework, class materials, and course materials are uploaded on the Internet by the administrators	1.000	.654
who uses social media for language teaching purposes because of students' expectations	1.000	.589

Table 8

Structure Matrix for OLTTS

	Component	
I am afraid of becoming a language teacher…	1	2
who uses a variety of technological tools in his/her lessons because of institutional requirements	.788	.582
who uses a variety of technological applications/tools in a competent manner because of his/her colleagues' expectations	.853	.526
who brings games/videos/interactive materials into his/her classes because of his/her students' expectations	.343	.937

Table 8 (cont'd)

Structure Matrix for OLTTS

	Component	
I am afraid of becoming a language teacher…	1	2
who assigns online quizzes/supplementary material to his/her students because of students' expectations	.573	.903
who integrates technology into his/her lessons due to hearing about successful technology integration in his/her colleagues' classes	.727	.684
who integrates technology into his/her lessons to avoid colleagues' prejudiced opinions of not being an up-to-date teacher	.849	.307
who integrates technology into his/her classes because the administrators provide all the necessary equipment (e.g. laptop computers in all classes, wireless Internet connection etc.)	.799	.438
who integrates technology into his/her classes because all the homework, class materials, and course materials are uploaded on the Internet by the administrators	.809	.363
who uses social media for language teaching purposes because of students' expectations	.752	.200

Appendix E

Normality Values

Table 1

Normality Values of the Items for Instructors' Perceptions on Technology Use

Constructs		Skewness / Standard Error	z-score for Skewness	Kurtosis / Standard Error	z-score for Kurtosis
Performance Expectancy					
Degree	BA	-.852/.365	-2.33	1.033/.717	1.44
	MA & PhD	-1.269/.251	-5.06*	2.834/.498	5.69*
Professional Qualifications	ICELT/DELTA /CELTA/Other/ None	-1.513/.378	-4.00*	3.501/.741	4.72*
		-1.225/.325	-3.77*	3.040/.639	4.76*
Years of Teaching Experience	1-5	-	-	-	-
	6-10	.086/.752	.00	-1.187/1.481	-.80
	11-15	-1.089/.374	-2.91	2.262/.733	3.09
	16-20	-1.559/.414	-3.76*	3.434/.809	4.24*
	21 and over	-.919/.325	-2.83	1.935/.639	3.03
Effort Expectancy					
Degree	BA	-.268/.365	-.073	-.177/.717	-.25
	MA & PhD	.378/.251	-1.50	-.309/.498	-.62
Professional Qualifications	ICELT/DELTA /CELTA/Other/ None	-.316/.378	-.83	-.461/.741	-.62
		-.576/.325	-1.77	.144/.639	.22
Years of Teaching Experience	1-5	-	-	-	-
	6-10	-.319/.752	-.42	-1.607/1.481	-1.08
	11-15	-.713/.374	-1.91	.566/.733	.77
	16-20	-.638/.414	-1.54	.154/.809	.19
	21 and over	-.119/.325	-.37	.198/.639	.31
Attitude					
Degree	BA	-1.216/.365	-3.33*	1.498/.717	2.09
	MA & PhD	-.662/.251	-2.64	046/.498	.09

Table 1 (cont'd)

Normality Values of the Items for Instructors' Perceptions on Technology Use

Constructs		Skewness / Standard Error	z-score for Skewness	Kurtosis / Standard Error	z-score for Kurtosis
Professional Qualifications	ICELT/DELTA /CELTA/Other/ None	-2.325/.378 -.885/.325	-6.15* -2.72	8.527/.741 .308/.639	11.50* .48
Years of Teaching Experience	1-5	-	-	-	-
	6-10	-.935/.752	-1.24	.350/1.481	.24
	11-15	-.205/.374	-.55	-.697/.733	-.95
	16-20	-2.396/.414	-5.79*	6.740/.809	8.33*
	21 and over	-.307/.325	-.94	-.978/.639	-1.53
Social Influence					
Degree	BA	-.886/.365	-2.42	.088/.717	.12
	MA & PhD	.189/.251	.75	.123/.498	.24
Professional Qualifications	ICELT/DELTA /CELTA/Other/ None	-.386/.378 -.138/.325	-1.02 -.42	-.596/.741 -.688/.639	-.80 -1.07
Years of Teaching Experience	1-5	-	-	-	-
	6-10	.049/.752	.06	-1.007/1.481	-.68
	11-15	-.005/.374	-.01	.287/.733	.39
	16-20	.090/.414	.22	.002/.809	.00
	21 and over	-.317/.325	-.97	-.592/.639	-.93
Facilitating Conditions					
Degree	BA	-.473/.365	-1.29	-.510/.717	-.71
	MA & PhD	-.228/.251	-.91	.457/.498	.92
Professional Qualifications	ICELT/DELTA /CELTA/Other/ None	-.610/.378 -.921/.325	-1.61 -2.83	-.550/.741 1.623/.639	-.74 2.54

Table 1 (cont'd)

Normality Values of the Items for Instructors' Perceptions on Technology Use

Constructs		Skewness / Standard Error	z-score for Skewness	Kurtosis / Standard Error	z-score for Kurtosis
Facilitating Conditions					
Years of Teaching Experience	1-5	-	-	-	-
	6-10	-1.112/.752	-1.48	2.672/1.481	1.80
	11-15	-1.137/.374	-3.04	1.323/.733	1.81
	16-20	.040/.414	.10	2.104/.809	2.60
	21 and over	-.412/.325	-1.27	.086/.639	.13
Self-Efficacy					
Degree	BA	.725/.365	1.99	.597/.717	.83
	MA & PhD	-.082/.251	-.33	-.236/.498	-.47
Professional Qualifications	ICELT/DELTA /CELTA/Other/ None	.160/.378	.42	-.504/-.741	-.68
		-.242/.325	-.74	-.048/.639	-.07
Years of Teaching Experience	1-5	-	-	-	-
	6-10	-.480/.752	-.64	-.564/1.481	-.38
	11-15	.170/.374	.45	-.251/.733	-.34
	16-20	.248/.414	.60	-.375/.809	-.46
	21 and over	.061/.325	.19	-.223/.639	-.35
Anxiety					
Degree	BA	-.193/.365	-.53	-.780/.717	-.01
	MA & PhD	-.557/.251	-2.22	-.276/.498	-.55
Professional Qualifications	ICELT/DELTA /CELTA/Other/ None	-.152/.378	-.40	-.760/.741	-1.02
		-.397/.325	-1.22	-.635/.639	.99
Years of Teaching Experience	1-5	-	-	-	-
	6-10	.408/.752	.54	.146/1.481	.10
	11-15	-.350/.374	-.94	-.453/.733	-.62
	16-20	-.530/.414	-1.28	-.691/.809	-.85
	21 and over	-.196/.325	-.60	-.715/.639	-1.12

Table 1 (cont'd)

Normality Values of the Items for Instructors' Perceptions on Technology Use

Behavioural Intention					
Constructs		Skewness / Standard Error	z-score for Skewness	Kurtosis / Standard Error	z-score for Kurtosis
Degree	BA	-1.056/.365	-2.89	1.299/.717	1.81
	MA & PhD	-.543/.251	-2.16	.425/.498	.85
Professional Qualifications	ICELT/DELTA /CELTA/Other/ None	-1.536/.378	-4.06*	3.551/.741	4.79*
		-.752/.325	-2.31	.252/.639	.39
Years of Teaching Experience	1-5	-	-	-	-
	6-10	-.770/.752	-1.02	-1.696/1.481	-1.15
	11-15	-.289/.374	-.77	-.995/.733	-1.36
	16-20	-1.724/.414	-4.16*	4.351/.809	5.38*
	21 and over	-.582/.325	-1.79	-.004/.639	-.00

*: The starred values exceed the absolute value of 3.29. However, the difference between their mean and trimmed mean are at an acceptable level. Thus, the data were considered normal, as well.

Table 2

Normality Values of the Items for Instructors' Perceptions on ILTTS, FLTTS, and OLTTS

Constructs		Skewness / Standard Error	z-score for Skewness	Kurtosis / Standard Error	z-score for Kurtosis
ILTTS					
Degree	BA	-.831/.365	-2.28	.913/.717	1.27
	MA & PhD	-1.313/.251	-5.23*	2.384/.498	4.79*
Professional Qualifications	ICELT/DELTA /CELTA/Other/ None	-.543/.378	-1.44	-.731/.741	-.99
		-1.260/.325	-3.88*	1.630/.639	2.55

Table 2 (cont'd)

Normality Values of the Items for Instructors' Perceptions on ILTTS, FLTTS, and OLTTS

Constructs		Skewness / Standard Error	z-score for Skewness	Kurtosis / Standard Error	z-score for Kurtosis
ILTTS					
Years of	1-5	-	-	-	-
Teaching	6-10	.017/.752	.02	-2.000/1.481	-1.35
Experience	11-15	-.408/.374	-1.09	-.298/.733	-.40
	16-20	-1.407/.414	-3.40*	3.004/.809	3.71*
	21 and over	-.997/.325	-3.07	1.034/.639	1.62
FLTTS					
Degree	BA	.138/.365	.38	-1.046/.717	-1.46
	MA & PhD	-.212/.251	-.84	-1.037/.498	-2.08
Professional	ICELT/DELTA	-.465/.378	-1.23	-1.021/.741	-1.38
Qualifications	/CELTA/Other/				
	None	.281/.325	.86	-.944/.639	-1.48
Years of	1-5	-	-	-	-
Teaching	6-10	.657/.752	.87	-.488/1.481	-.33
Experience	11-15	-.391/.374	-1.05	-.769/.733	-1.05
	16-206	-.387/.414	-.93	-.846/.809	-1.05
	21 and over	.152/.325	.47	-1.105/.639	-1.73
OLTTS					
Degree	BA	.016/.365	.05	.047/.717	.07
	MA & PhD	-.256/.251	-1.02	.343/.498	.69
Professional	ICELT/DELTA	-.557/.378	-1.47	.816/.741	1.10
Qualifications	/CELTA/Other/				
	None	-.093/.325	-0.29	.178/.639	.28

Table 2 (cont'd)

Normality Values of the Items for Instructors' Perceptions on ILTTS, FLTTS, and OLTTS

Constructs		Skewness / Standard Error	z-score for Skewness	Kurtosis / Standard Error	z-score for Kurtosis
OLTTS					
Years of	1-5	-	-	-	-
Teaching	6-10	-.871/.752	-1.16	1.637/1.481	1.10
Experience	11-15	.057/.374	.15	2.491/.733	3,40*
	16-20	-.754/.414	1.82	-.124/.809	-.15
	21 and over	.297/.325	.91	.287/.639	.45

Appendix F

Multiple Comparisons Table for Performance Expectancy, Effort Expectancy, and Anxiety (Bonferroni Results)

Dependent Variable	Years of Teaching Experience	Years of Teaching Experience	Mean Difference	Standard Error	*p*
Performance Expectancy	6-10 years	11-15 years	.050	.282	1.000
		16-20 years	-.010	.288	1.000
		21-above	.400	.276	.897
	11-15 years	6-10 years	-.050	.282	1.000
		16-20 years	-.060	.173	1.000
		21-above	.350	.152	.137
	16-20 years	6-10 years	.010	.288	1.000
		11-15 years	.060	.173	1.000
		21-above	.410	.162	.076
	21-above	6-10 years	-.400	.276	.897
		11-15 years	-.350	.152	.137
		16-20 years	-.410	.162	.076
Effort Expectancy	6-10 years	11-15 years	.356	.281	1.000
		16-20 years	.367	.287	1.000
		21-above	.833*	.275	.018
	11-15 years	6-10 years	-.356	.281	1.000
		16-20 years	.011	.172	1.000
		21-above	.477*	.151	.012
	16-20 years	6-10 years	-.367	.287	1.000
		11-15 years	-.011	.172	1.000
		21-above	.466*	.162	.028
	21-above	6-10 years	-.833*	.275	.018
		11-15 years	-.477*	.151	.012
		16-20 years	-.466*	.162	.028

Multiple Comparisons Table for Performance Expectancy, Effort Expectancy, and Anxiety (Bonferroni Results) (cont'd)

Dependent Variable	Years of Teaching Experience	Years of Teaching Experience	Mean Difference	Standard Error	*p*
Anxiety	6-10 years	11-15 years	.194	.309	1.000
		16-20 years	.164	.316	1.000
		21-above	.635	.302	.226
	11-15 years	6-10 years	-.194	.309	1.000
		16-20 years	-.030	.189	1.000
		21-above	.442	.167	.054
	16-20 years	6-10 years	-.164	.316	1.000
		11-15 years	.030	.189	1.000
		21-above	.471	.178	.055
	21-above	6-10 years	-.635	.302	.226
		11-15 years	-.442	.167	.054
		16-20 years	-.471	.178	.055

Appendix G

Multiple Comparisons Table for ILTTS (Bonferroni Results)

Dependent Variable	Years of Teaching Experience	Years of Teaching Experience	Mean Difference	Standard Error	*p*
ILTTS	6-10 years	11-15 years	.135	.284	1.000
		16-20 years	-.042	.290	1.000
		21-above	.459	.278	.601
	11-15 years	6-10 years	-.135	.284	1.000
		16-20 years	-.177	.174	1.000
		21-above	.324	.153	.215
	16-20 years	6-10 years	.042	.290	1.000
		11-15 years	.177	.174	1.000
		21-above	.501*	.163	.016
	21-above	6-10 years	-.459	.278	.601
		11-15 years	-.324	.153	.215
		16-20 years	-.501*	.163	.016

Appendix H

Descriptive Statistics for ILTTS, FLTTS, and OLTTS and Years of Teaching Experience

Table 1

Descriptive Statistics for ILTTS and Years of Teaching Experience

Years of Teaching Experience	*M*	*SD*	*N*
6-10 years	4.34	0.537	8
11-15 years	4.21	0.596	40
16-20 years	4.39	0.609	32
21 and over years	3.88	0.894	54

Table 2

Descriptive Statistics for FLTTS and Years of Teaching Experience

Years of Teaching Experience	*M*	*SD*	*N*
6-10 years	2.31	1.163	8
11-15 years	3.08	1.031	40
16-20 years	3.19	1.196	32
21 and over years	2.98	1.192	54

Table 3

Descriptive Statistics for OLTTS and Years of Teaching Experience

Years of Teaching Experience	*M*	*SD*	*N*
6-10 years	2.61	0.823	8
11-15 years	2.99	0.651	40
16-20 years	3.07	0.771	32
21 and over years	2.90	0.739	54

Appendix I

Correlation Scatter Plots

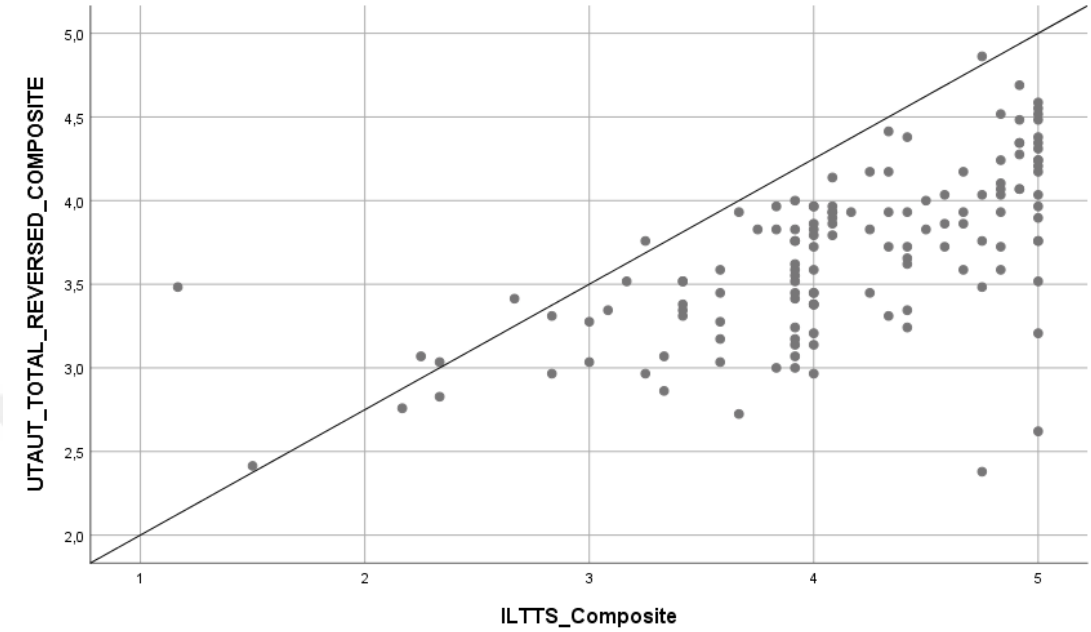

Figure 1. Correlation scatter plot for ILTTS

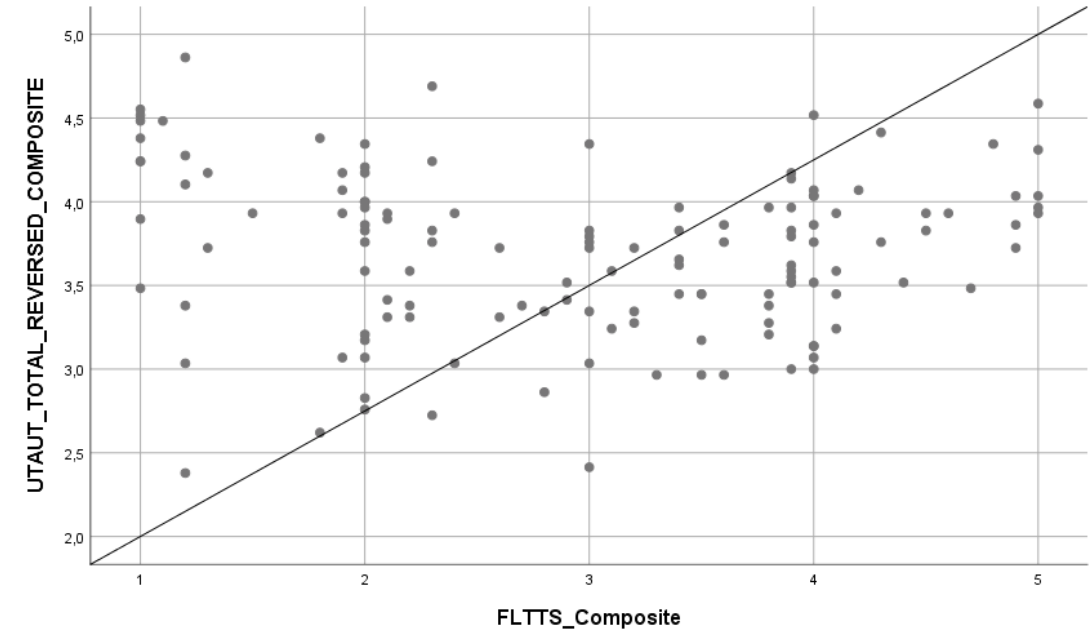

Figure 2. Correlation scatter plot for FLTTS

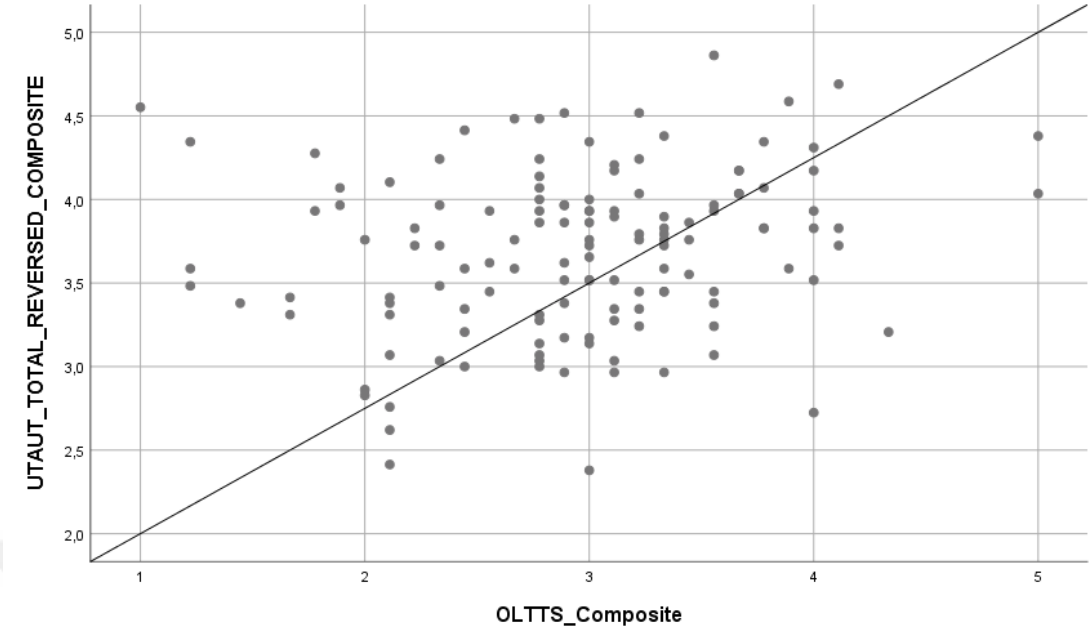

Figure 3. Correlation scatter plot for OLTTS

Appendix J

The Relationship between EFL Instructors' Perceptions on Technology Use and Their ILTTS, FLTTS, and OLTTS

Table 1

The Relationship between EFL Instructors' Perceptions on Technology Use and Their ILTTS

		Perceptions on Technology Use	ILTTS
Perceptions on Technology Use	Pearson Correlation	1	.625*
	Sig. (2-tailed)		.000
	Covariance	.239	.231
ILTTS	Pearson Correlation	.625*	1
	Sig. (2-tailed)	.000	
	Covariance	.231	.569

*Correlation is significant at the 0.01 level (2-tailed).

Table 2

The Relationship between EFL Instructors' Perceptions on Technology Use and Their FLTTS

		Perceptions on Technology Use	FLTTS
Perceptions on Technology Use	Pearson Correlation	1	-.056
	Sig. (2-tailed)		.521
	Covariance	.239	-.031
FLTTS	Pearson Correlation	-.056	1
	Sig. (2-tailed)	.521	
	Covariance	-.031	1.327

Table 3

The Relationship between EFL Instructors' Perceptions on Technology Use and Their OLTTS

		Perceptions on Technology Use	OLTTS
Perceptions on Technology Use	Pearson Correlation	1	.194*
	Sig. (2-tailed)		.025
	Covariance	.239	.069
OLTTS	Pearson Correlation	.194*	1
	Sig. (2-tailed)	.025	
	Covariance	.069	.528

*Correlation is significant at the 0.05 level