



ISTANBUL MEDENIYET UNIVERSITY
INSTITUTE OF GRADUATE STUDIES
DEPARTMENT OF FOREIGN LANGUAGE EDUCATION
ENGLISH LANGUAGE EDUCATION

**An Investigation into EFL Instructors' Technology
Integration Self-Efficacy Beliefs and Foreign Language
Teaching Anxiety**

Master's Thesis

Zerrin Gürkaya Dindar

May 2023



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Supervisor

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THESIS JURY APPROVAL

This Master thesis titled “An Investigation into EFL Instructors’ Technology Integration Self-Efficacy Beliefs and Foreign Language Teaching Anxiety” written by Zerrin Gürkaya Dindar at the Department of Foreign Language Education was accepted by our jury.

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STATEMENTS

Style and Reference Manual Statement

Having reviewed this thesis written under my supervision, I confirm that it has been written in accordance with the APA (7th Edition) Manual of Style and used its [footnote/in text] reference format consistently throughout the entire text.

Signature

Asst. Prof. Ferdane Denkci Akkaş

Declaration of Originality

I hereby declare that all information in this dissertation has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conducts, I have fully cited and referenced all material and results that are not original to this work.

Signature

Zerrin Gürkaya Dindar

GENİŞ ÖZET

Yabancı Dil Olarak İngilizce Öğreten Öğretmenlerin Teknoloji Entegrasyonu Öz Yeterlilik İnançları ve Yabancı Dil Öğretme Kaygıları Üzerine Bir Araştırma

Gürkaya Dindar, Zerrin

Yüksek Lisans Tezi, Yabancı Diller Eğitimi Anabilim Dalı

Danışman: Dr. Öğr. Üyesi Ferdane Denkci Akkaş

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Yirmi birinci yüzyılda öğretmenler için kritik bir yetkinliğin, bilgi ve iletişim teknolojilerini öğretme ve öğrenme faaliyetlerine başarılı bir şekilde entegre etme becerisi olduğu yaygın olarak kabul edilmektedir. Bunun bir nedeni, teknolojinin uygun öğretim teknikleriyle birlikte kullanıldığında öğretme ve öğrenme süreçlerini zenginleştirip geliştirebilmesidir. Dolayısıyla, eğitimde teknoloji entegrasyonu, istenen öğrenme çıktılarına ulaşmak için eğitim teknolojilerinin etkin kullanımı olarak tanımlanabilir. Bu bağlamda, öğretmenlerin önceden belirlenmiş hedefler doğrultusunda teknolojiyi başarılı bir şekilde uygulamak için gerekli beceri ve yeteneklerle donatılması elzemdir. Aynı şekilde yeni teknolojiler ortaya çıktıkça, öğretmenlerden de teknolojiyi derslerine entegre etme stratejilerini yeniden değerlendirmeleri ve geliştirmeleri beklenmektedir. Teknolojik Pedagojik Alan Bilgisi (TPAB) çerçevesi, temel öğretmen bilgisi türlerini vurgulaması yönünden bu konuda öne çıkmaktadır. Buna göre, iyi bir öğretimin önkoşulu içerik bilgisi, pedagojik bilgi ve teknolojik bilgiye sahip olmaktır. Bununla birlikte, her bir bilgiye ayrı ayrı sahip olmak ve değerlendirmekten ziyade, bu bilgiler arasındaki etkileşimler daha kritik ve önemlidir. Öğretmenler ancak yüksek düzeyde teknolojik pedagojik alan bilgisine sahip olduklarında, uygun teknolojileri kendi alanlarındaki ders içeriğine ve öğretim metodolojilerine uyumlu olarak entegre edebileceklerdir. Öğretmen bilgisi ve bağlamsal faktörlerin yanı sıra, öğretmenlerin öğretme ve öğrenme hakkındaki inançları, kendilerine olan güvenleri ve teknolojinin öğretme ve öğrenme sürecine algılanan katkısı, öğretmenlerin sınıf ortamında teknoloji

kullanımını önemli ölçüde etkilemektedir. Çeşitli inançların insan davranışları üzerinde etkili olduğu bilinse de kişinin belirli hedeflere ulaşmak için gerekli eylemleri planlama ve gerçekleştirme yeteneğine olan inancının sergilediği performansın temel unsuru olduğu öne sürülmüştür. Bu bakış açısına göre, bir öğretmen derslerine teknolojiyi entegre etmenin değerine güçlü bir şekilde inansa bile, bu değişikliği gerçekleştirmek için düşük öz yeterliliğe sahipse yeni şeyler denemekten ve değişiklikten kaçınabilmektedir. Bu doğrultuda, öğretmenlerin öğrenme ortamını geliştirmek amacıyla teknolojiyi etkili bir şekilde kullanabilmeleri için teknoloji entegrasyonuna yönelik güçlü bir öz yeterlilik duygusuna sahip olmaları gerekir. Öz yeterlilik kavramı, bir kişinin belirli görevleri yerine getirme ve belirli hedeflere ulaşma ile ilgili olarak algıladığı yeterliliği ifade eder. Buna göre, teknoloji entegrasyonuna yönelik öz yeterlilik, öğretmenlerin teknolojiyi etkin ve verimli bir şekilde kullanma becerilerine duydukları güven olarak tanımlanabilir ve bu yeterlilik inancının sınıflarda teknoloji kullanım alışkanlıkları üzerinde önemli bir etkiye sahip olduğu kabul edilmektedir. Teknoloji entegrasyonu öz yeterlilik inançlarının öğretmenlerin sınıftaki fiili uygulamalarının yanı sıra sınıfta karşılaştıkları dış zorlukların üstesinden gelmelerine yardımcı olduğu, teknoloji kullanımının artmasına olanak sağladığı ve öğretmenlerin teknoloji yeterliklerini belirlemede kilit bir faktör oluşturduğu bilinmektedir. Bu sebeple, teknoloji entegrasyonu öz-yeterlilik inançları son yıllarda eğitim araştırmalarında dikkat çekmektedir.

Teknoloji entegrasyonu öz yeterlilik inançlarına ek olarak, kaygı da öğretmenlerin performansını önemli ölçüde etkileyen bir diğer unsurdur. Kaygı, otonom sinir sisteminin uyarılması sonucu yaşanan gerginlik, endişe ve huzursuzluk gibi öznel deneyim ve duygular olarak tanımlanmaktadır. Bu kavramı tanımlamak ve açıklığa kavuşturmak amacıyla durumluk ve sürekli kaygı kavramları ortaya atılmıştır. Sürekli kaygı genellikle bir kişinin kişilik özelliklerinin bir parçası olarak kaygıya olan uzun vadeli eğilimi ile ilgilidir. Öte yandan, durumluk kaygı geçici bir duygusal durumla bağlantılıdır. Sürekli kaygının kalıcı olduğu bilinirken, durumluk kaygı geçicidir. İnsanların yaşamları üzerinde önemli bir etkiye sahip olan kaygı, dil öğrenimi ve öğretiminde de dikkate değer bir duygusal durum olarak kabul edilmektedir. Duruma özgü bir kaygı türü olarak kabul edilen yabancı dil kaygısı, dil öğrenenler tarafından deneyimlenen yaygın bir durumdur. Yabancı

dil kaygısı öğrenme süreçlerini sekteye uğrattığı için oldukça ilgi çekmiş ve çeşitli araştırmacılar tarafından bu kaygının kaynakları ve etkileri araştırılmıştır. Bununla birlikte, yabancı dil öğretme kaygısı, alanda dikkatleri üzerine yakın zamanda çeken ve farklı değişkenlerle ilişkili olarak derinlemesine araştırılması gereken önemli bir kavramdır. Yabancı dil öğretme kaygısı, başlangıçta öğretmenlerin yetersiz dil yetkinliği algılarıyla ilişkilendirilmiştir. Bu durumun da hedef dilin öğretmenler tarafından öğrenme ortamında daha az kullanılmasına, hedef dilin aktif ve kamusal olarak kullanılmasını gerektiren eğitim stratejilerinden kaçınılmasına neden olabileceğine dikkat çekilmiştir. Ancak, yabancı dil öğretme kaygısı, öğretmenlerin algıladıkları dil yeterlilik düzeyiyle sınırlandırılmayacak kadar geniş bir kavramdır ve dil öğretimi uygulamasıyla ilişkili duyuşsal, bilişsel, sosyokültürel ve çevresel faktörlerden kaynaklanabilen duruma özgü bir sınıf kaygısı türüdür. Yabancı dil öğretme kaygısını önemli kılan şey bu kaygının daha az etkili dil öğretimine, yenilikçi öğretim uygulamalarını denemekten kaçınmaya, daha düşük özgüven, iş tatmini ve zihinsel iyi oluşa sebebiyet vermesidir. Öğretmenlik mesleğinin bağlamsal ve çevresel faktörler ile kendilerinden beklenen sürekli değişim ve gelişim talebi dikkate alınmadan dahi zorlu olduğu açıktır. Buna ek olarak, günümüzün rekabetçi teknoloji ortamı da dil öğretmenlerinin omuzlarına ekstra bir yük bindirebilir. Bu nedenle, teknoloji ortamındaki bu sürekli değişimin öğretmenlerin yabancı dil öğretimi kaygı düzeyleri üzerindeki etkilerini anlamak için, bu çalışma teknoloji entegrasyonu öz yeterlilik inancı ve yabancı dil öğretimi kaygısı kavramlarını araştırmayı ve varsa iki kavram arasındaki ilişkiyi ortaya koymayı amaçlamaktadır.

Bu çalışma dışarıdan herhangi bir müdahale olmaksızın meydana gelen iki olgu hakkında bilgi edinmeyi ve iki değişken arasındaki ilişkinin derecesini araştırmayı amaçladığından, nicel veri toplama tekniklerinin kullanıldığı ilişkisel tarama modelinde betimsel bir araştırma olarak planlanmıştır. Katılımcıların teknoloji öz yeterlilik inançlarını ölçmek amacıyla Wang, Ertmer ve Newby (2004) tarafından geliştirilen “Teknoloji Entegrasyonu Öz Yeterlilik Ölçeği”, yabancı dil öğretme kaygı düzeylerini ortaya koymak amacıyla İpek (2006) tarafından geliştirilmiş, Eren (2020) tarafından İngilizce ‘ye uyarlanmış “Yabancı Dil Öğretme Kaygısı Ölçeği” kullanılmıştır. Bu iki kavramın çeşitli değişkenlerle olası ilişkilerini incelemek için bir arka plan anketi oluşturulmuştur. COVID-19 pandemisinin henüz tam olarak

bitmemiş olmasına bağlı olarak yüz yüze veri toplamanın ve İstanbul'da farklı bölgelerde görev yapmakta olan İngilizce öğretim görevlilerine ulaşmanın zor olması sebebiyle, ilgili veri toplama araçları Google Formlar aracılığıyla internet üzerinden paylaşılmıştır. Sonuç olarak, çalışmaya İstanbul'daki yüksek öğretim kurumlarında çalışan gönüllü 226 öğretim görevlisi veri toplama araçlarına verdikleri cevaplar ile katılmışlardır. Elde edilen veriler SPSS programına aktarılarak Spearman korelasyon testi, bağımsız örneklem t testi, tek yönlü ANOVA, Mann-Whitney U Testi, Kruskal Wallis Testi yardımıyla analiz edilmiştir.

Çalışmanın sonuçlarına göre, üniversite düzeyinde İngilizce eğitimi veren İngilizce öğretmenleri güçlü teknoloji entegrasyonu öz yeterlilik inançlarına sahiptir. Öte yandan katılımcıların ölçeğin alt boyutlarından bilgisayar teknolojisi ve yetenekleri konusunda kendilerine daha çok güvendikleri gözlenmiştir. Katılımcılar yüksek düzeyde öz yeterliliğe sahip olsalar da teknoloji kullanımının dış etkileri konusunda daha nispeten daha az güven duymaktadırlar. Diğer bir deyişle, öğretmenler teknoloji araçlarını derslerinde etkili bir şekilde kullanabileceklerine inanmaktadırlar; ancak teknoloji kullanımı konusunda başkalarına yardımcı olma, onları gözlemlleme ve motive etme konusunda kendilerine o kadar güvenmedikleri açığa çıkmıştır. Yabancı dil öğretme kaygısı ile ilgili sonuçlar dikkate alındığında, öğretmenlerin bu kaygıdan düşük seviyede muzdarip oldukları görülmüştür ve ana dil kullanımı, hata yapma, diğer öğretmenlerle kıyaslanma alt boyutlarında kaygıları daha yüksekken, hedef dil performansı ve belirli bir dil becerisini öğretme kaygılarının daha düşük seviyede olduğu bulunmuştur. Bu bulgulara ek olarak, İstanbul'daki üniversitelerde çalışan İngilizce öğretmenlerinin teknoloji entegrasyonu öz yeterlilik algıları ile yabancı dil öğretme kaygıları arasında anlamlı ve negatif bir ilişki olduğu ortaya konmuştur. Teknoloji entegrasyonu öz yeterlilik inançları ile yabancı dil öğretme kaygısının alt boyutları arasındaki ilişki incelendiğinde, teknoloji entegrasyonu öz yeterlilik inançları ile en güçlü negatif ilişkiye sahip olan alt boyutun belirli bir dil becerisini öğretme kaygısı olduğu ve bu alt boyutun hata yapma, hedef dil performansı ve diğer öğretmenlerle kıyaslanma kaygısının takip ettiği görülmüştür. Öte yandan, katılımcıların yabancı dil öğretme kaygısının teknoloji entegrasyonu öz yeterlilik inançları ölçeğinin alt boyutları ile olan ilişkisine bakıldığında, teknoloji kullanımının dış etkileri alt boyutunun bilgisayar teknolojisi ve yetenekleri alt boyutuna göre daha güçlü negatif ilişkiye

sahip olduđu bulunmuştur. Ayrıca, yaş, öğretmenlik deneyimi, haftalık ders saati, kurum türü, teknoloji entegrasyonu eğitimi, eğitimin etkililiđi, işyerinde benimsenen sistem ve işyerindeki olanaklar gibi faktörlerin öğretmenlerin teknoloji entegrasyonu öz yeterlilik inançlarını anlamlı bir şekilde etkilediđi bulunmuştur. Son olarak, katılımcı öğretmenlerin yabancı dil öğretme kaygılarının yaş, öğretim yılı deneyimi, en son tamamlanan eğitim derecesi, teknoloji entegrasyonu eğitiminin etkililiđi, öğretim elemanlarının ders verdiđi yeterlik düzeylerinin çeşitliliđi gibi bazı faktörlere göre anlamlı bir şekilde deđiştirdiđi ortaya konmuştur.

Bu çalışmanın sonuçları alan yazındaki mevcut çalışmalar ışığında incelendiğinde benzerliklerin yanı sıra, bazı farklılıklar da gözlemlenmiştir. Örneğin benzer çalışmalarda da öğretmenlerin güçlü teknoloji entegrasyonu öz yeterlilik inançlarına sahip oldukları görülmüştür. Demografik deđişkenler açısından benzerliklerle birlikte (örn. yaş, cinsiyet, haftalık ders saatleri) farklılıklara da (örn. öğretmenlik deneyimi) rastlanmıştır. Mevcut çalışma, üniversite düzeyinde eğitim verip bu çalışmaya katılan İngilizce öğretmenlerinin yabancı dil öğretme kaygısının düşük olduğunu tespit etmiştir. Alan yazında benzer sonuçları bulan çalışmaların olmasının yanı sıra, öğretmenlerin yabancı dil öğretme kaygısından orta derecede muzdarip olduğunu ortaya çıkaran çalışmalar da vardır. Yabancı dil öğretme kaygısının demografik deđişkenlerle olan ilişkisine bakıldığında, alan yazındaki diđer çalışmalarda benzerliklerin (örn. yaş, öğretmenlik deneyimi) yanında, farklı sonuçlara da (örn. cinsiyet, eğitim düzeyi, mezuniyet programı) ulaşıldığı görülmüştür. Ek olarak, bu çalışma İngilizce öğretmenlerinin teknoloji entegrasyonu öz yeterlilik inançları ile yabancı dil öğretme kaygılarının alan yazında daha önce incelenmemiş demografik deđişkenler ile olan olası ilişkisini de araştırmıştır. Ayrıca, alan yazında daha önce teknoloji entegrasyonu öz yeterlilik inançları ile yabancı dil öğretme kaygısı arasındaki olası ilişkiyi araştıran bir çalışmaya rastlanmamıştır. Bu açılarından, çalışmanın alan yazına katkı sağladığı düşünülmektedir.

Mevcut çalışmanın sonuçları ışığında, öğretmenlere, karar vericilere ve araştırmacılara bazı tavsiyelerde bulunulmuştur. Öğretmenlere teknolojiyi dil sınıflarına entegre etmenin farklı yollarına odaklanan ücretsiz web seminerlerinden yararlanmaları, öğrencileri için faydalı olacağını düşündükleri teknolojileri denemek için zaman ayırmaları, araştırmaları sırasında çeşitli eğitim videoları ile

uzmanlardan veya daha deneyimli meslektaşlarından yardım almaları, işyerlerinde veya şehirlerindeki diğer okullarda teknoloji konusunda sunulan hizmet içi eğitim fırsatlarını takip etmeleri, eğer işyerlerinde böyle bir olanak yoksa, öğretmenlerin teknolojiyi kullanırken yaşadıkları ortak sorunlar hakkında farkındalık yaratmaları ve okul yönetimlerinden seminer ya da çalıştay talep etmeleri tavsiye edilmiştir. Öte yandan yükseköğretim kurumlarının hizmet öncesi İngilizce öğretmenlerinin TPAB ve teknoloji entegrasyonu öz yeterlilik inançlarını geliştirmek için sadece teorik değil uygulamalı dersler de sunması, sınıflardaki alt yapı sorunlarının çözülmesi önerilmiştir. Benzer şekilde, okul yöneticileri ve kurumların mesleki gelişim birimlerinin, hizmet içi İngilizce öğretmenlerini kendi yerel bağlamlarında kullanılan teknolojiler konusunda desteklemek ve eğitmek için uygulamalı mesleki gelişim etkinlikleri düzenlemeleri ve bu etkinliklerin ardından ihtiyaç duyulması halinde öğretmenlerin bir uzmana danışabilmek ve yardım alabilmek için gerekli olanakları sağlamaları önerilmiştir. Ek olarak, genç öğretmenlerin kaygı düzeyini azaltmak için hizmet öncesi İngilizce öğretmenlerine eğitimleri esnasında gerçek sınıflarda ders vermek için daha fazla fırsat sunulması; ikinci olarak mesleğe yeni başlayan ya da daha az deneyimli öğretmenler için öğretmenliğe ilk başladıklarında işyerlerinde özel oryantasyon programları tasarlanması, kendilerine rehberlik edecek birer danışmanın atanması önerilmiştir. Gelecekte teknoloji entegrasyonu öz yeterlilik inançları ve yabancı dil öğretme kaygısı konularını irdeleyecek araştırmacıların benzer bir çalışmayı farklı okul türlerinde yürütmeleri ve okul türünün bu kavramlar üzerindeki etkisini araştırmaları, incelenen iki kavramın güncel kaynakları ve etkilerinin daha iyi anlaşılabilmesi adına karma yöntemde çalışmalar yürütmeleri önerisi getirilmiştir. Alan yazında daha önce öğretmenlerin teknoloji entegrasyonu öz yeterlilik inançları ve yabancı dil öğretme kaygıları arasındaki ilişkiyi inceleyen başka bir çalışmaya rastlanmadığından ve ek olarak cinsiyet ve mezun olunan program gibi bazı demografik değişkenlerin öğretmenlerin teknoloji entegrasyonu öz yeterlilik inançları ve yabancı dil öğretme kaygısı üzerindeki rolü hakkında kesin sonuçlara varılabilmesi için benzer çalışmaların yürütülebileceği ön görülmüştür. Son olarak anadili İngilizce olan İngilizce öğretmenleri ile ana dili İngilizce olmayan İngilizce öğretmenlerinin yabancı dil öğretme kaygısının karşılaştırıldığı çalışmaların yürütülmesi önerilmiştir.

Anahtar Kelimeler: Teknoloji entegrasyonu, Öz yeterlilik, Teknoloji entegrasyonu
öz yeterlilik inançları, Kaygı, Yabancı dil öğretme kaygısı

ABSTRACT

An Investigation into EFL Instructors' Technology Integration Self-Efficacy Beliefs and Foreign Language Teaching Anxiety

Gürkaya Dindar, Zerrin

Master's Thesis, Department of Foreign Language Education

Asst. Prof. Ferdane Denkci Akkaş

May 2023

This study aims to examine technology integration self-efficacy beliefs and foreign language teaching anxiety of tertiary-level EFL instructors employed at universities in İstanbul province in addition to revealing any possible relationships between the two constructs. As it employs quantitative data collection tools, this study can be described as a descriptive study with a correlational survey design. The data of the study were collected from 226 EFL instructors working at higher education institutions in İstanbul via a background questionnaire and two different scales. The findings of the study revealed that the participants had strong technology integration self-efficacy beliefs and experienced foreign language teaching anxiety to some extent. Moreover, a low level significant negative correlation existed between technology integration self-efficacy beliefs and foreign language teaching anxiety of EFL instructors, meaning if they had higher self-efficacy for technology integration, they suffered less from foreign language teaching anxiety. Furthermore, factors such as age, years of teaching experience, teaching hours per week, institution type, training on technology integration, the effectiveness of training, adopted system at the workplace, and facilities at the workplace were found to affect technology integration self-efficacy beliefs of teachers significantly. Finally, some factors such as age, years of teaching experience, last degree completed, the effectiveness of training on

technology integration, and the variety of proficiency levels instructors teach had a significant impact on participant teachers' foreign language teaching anxiety.

Keywords: Technology integration, Self-efficacy, Technology integration self-efficacy beliefs, Anxiety, Foreign language teaching anxiety

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Zerrin GÜRKAYA DİNDAR

DEDICATION

Dedicated to my beloved grandfather "Recep Usta".

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LIST OF ABBREVIATIONS

EFL: English as a Foreign Language

TPACK: Technological Pedagogical Content Knowledge

TISE: Technology Integration Self-Efficacy

FLTA: Foreign Language Teaching Anxiety

TISES: Technology Integration Self-Efficacy Scale

FLTAS: Foreign Language Teaching Anxiety Scale

BA: Bachelor of Arts

MA: Master of Arts

Ph.D.: Doctor of Philosophy

CALL: Computer-Assisted Language Learning

CD: Compact Disc

DVD: Digital Versatile Disc

CK: Content Knowledge

PK: Pedagogical Knowledge

TK: Technology Knowledge

TPK: Technological Pedagogical Knowledge

TCK: Technological Content Knowledge

PCK: Pedagogical Content Knowledge

ICT: Information and Communication Technologies

TSE: Teacher Self-Efficacy

FLA: Foreign Language Anxiety

ISTE: International Society for Technology Education

UAE: United Arab Emirates

LBD: Learning Technology by Design

SRL: Self-Regulated Learning

TPACK-ISTE: Technological Pedagogical Content Knowledge- International
Society for Technology Education

PPL: Personalised Professional Learning

ELL: English Language Literature

ELT: English Language Teaching

1. INTRODUCTION

The purpose of this study is to determine EFL instructors' perceived technology integration self-efficacy (TISE) and foreign language teaching anxiety (FLTA) as well as reveal any possible relationship between these constructs. In addition, it aims to investigate EFL instructors' technology integration self-efficacy beliefs and foreign language teaching anxiety in relation to certain demographic variables. Accordingly, this chapter provides an overview of the study. First, the constructs of technology integration self-efficacy and foreign language teaching anxiety are introduced in relation to the previous literature. Next, the problem is explained, and the purpose and the research questions addressed in the study are presented. Following that, the limitations of the study are provided.

1.1 Background of the Study

It is commonly accepted that one critical capability for teachers in the twenty-first century is the ability to successfully integrate ICTs into teaching and learning activities. One reason is that technology may enrich and improve the teaching and learning processes when used in conjunction with appropriate teaching techniques (Önalan & Kurt, 2020). Thus, technology integration in education could be defined as the effective use of educational technology to achieve desired learning outcomes (Davies & West, 2014). From a broad perspective, “any tool, piece of equipment, or device- electronic or mechanical- that can be used to help students accomplish specified learning goals” comprise educational technology (Davies & West, 2014, p. 843).

Teachers should possess the knowledge and abilities needed to successfully implement technology in line with the predetermined objectives. As new technologies emerge, teachers must reevaluate and improve their integration strategies (Otto, 2017). Technological Pedagogical Content Knowledge (TPACK) framework becomes prominent in these concerns since it highlights fundamental types of teacher knowledge. Accordingly, content knowledge, pedagogical knowledge, and technological knowledge are a prerequisite for good teaching. Nevertheless, the interactions among the before-mentioned knowledge are critical

and more important rather than possessing and evaluating knowledge individually (Koehler & Mishra, 2006). TPACK framework suggests that each piece of knowledge constitutes a significant part of teacher knowledge, and good teaching only occurs when teachers are capable of teaching their subject matter with appropriate approaches and tools (Koehler & Mishra, 2006; Schmidt et al., 2009). In other words, when teachers have high levels of technological pedagogical content knowledge, they can integrate the appropriate technology into their teaching methodologies in the related content area of their fields (Schmidt et al., 2009).

Furthermore, teachers should have access to certain technologies and support in their teaching context whenever needed considering the nature of technology tools and resources which is constantly changing. Individual efforts should not be frequently limited or constrained by the context in which teachers work (Ertmer & Ottenbreit-Leftwich, 2010). Besides teacher knowledge and contextual factors, teachers' beliefs about teaching and learning, their confidence, and perceived contribution of technology to the teaching and learning process significantly impact their technology uses in classrooms (Ertmer et al., 2012). Although a wide range of beliefs may have an effect on human behavior in any particular situation, Bandura (1997) claimed that the fundamental element of human agency is the belief in one's ability to plan and implement the actions necessary to achieve specific goals. According to this perspective, even if a teacher strongly believes in the value of integrating technology, they may be discouraged from trying it if they have low self-efficacy to carry out a change (Albion & Ertmer, 2002). Therefore, teachers should have a strong sense of TISE in order to utilize technology to provide enhanced learning opportunities in language classrooms (Abbitt, 2011; Heath, 2017).

The notion of self-efficacy refers to a person's perceived competence in relation to fulfilling specific tasks and achieving certain goals (Gallagher, 2012; Heslin & Klehe, 2007; Pajares, 1996). Accordingly, technology integration self-efficacy can be described as teachers' confidence in their ability to use technology efficiently and productively, and it is accepted to have a remarkable impact on their habits of technology use in classrooms (Wang et al., 2004). This is mainly because having a direct impact on teachers' intentions and actual practices regarding technology use, beliefs, and attitudes toward technology use help them overcome

external difficulties they face in the classroom (Dikmen & Demirer, 2022; Ertmer et al., 2012; Inan & Lowther, 2010). It is assumed that intentions and high self-efficacy may lead to increased technology use (Han et al., 2017). Furthermore, teachers' perceived self-efficacy constitutes a key factor in determining their technology competency (Abbitt, 2011; Birisci & Kul, 2019; Dikmen & Demirer, 2022; Dinçer, 2020; Keser et al., 2015; Yıldız Durak, 2021). As discussed earlier, teachers should possess the necessary knowledge and experience to implement technology effectively. Furthermore, self-efficacious learners appear to be more goal-driven, effort-regulated, persistent, and committed to learning and undertaking tasks, which leads to accomplishments and competence (Bandura, 1992). In line with Bandura's self-efficacy theory, it can be asserted that teachers' TISE may have a powerful impact on their acquirement of information and computer technology competencies (Zhang et al., 2023). Therefore, technology integration self-efficacy beliefs have drawn remarkable attention in educational research in the last few years.

In addition to technology integration self-efficacy beliefs, anxiety is another element that notably affects a teacher's performance. Anxiety is described as the subjective experience and sense of tension, worry, apprehension, and uneasiness as a result of arousal of the autonomic nervous system (Horwitz et al., 1986; Spielberger, 1972). In an attempt to define and clarify the notion, Spielberger (1972) introduces state and trait anxiety. Trait anxiety generally relates to a person's long-term propensity to anxiety as part of their personality attribute. State anxiety, on the other hand, is connected to a transient emotional condition. Trait anxiety is known to be permanent, whereas state anxiety is transient. Furthermore, Alpert and Haber (1960) divide anxiety into two as debilitating and facilitating anxiety. While facilitating anxiety may inspire people to overcome challenges and perform better, debilitating anxiety is unpleasant since it disrupts the task at hand and causes avoidance behavior (Scovel, 1978). Therefore, anxiety, which has a considerable impact on people's lives, is also recognized as a remarkable emotional state in educational settings and in language learning and teaching as well.

Acknowledged as situation-specific anxiety in second and foreign language contexts (Aydın & Uştuk, 2020a) foreign language anxiety is a common situation experienced by language learners. MacIntyre and Gardner (1994) identify language

anxiety with feelings of discomfort and apprehension in reference to second language learning and language skills, specifically listening and speaking. Since foreign language anxiety disrupts the learning processes, it has drawn a considerable amount of attention, and the sources and impacts of this anxiety have been investigated by various researchers. However, the notion of foreign language teaching anxiety is a promising concept that still needs to be investigated in relation to different variables as it has only recently attracted the interest of scholars in the field.

Foreign language teaching anxiety was initially associated with teachers' perceptions of inadequate language competence which in turn may result in using the target language less in class, avoiding educational strategies which require the use of the target language actively and publicly (Horwitz, 1996). However, FLTA is a broad concept that cannot be restricted to teachers' perceived level of language competency; it is a specific type of classroom anxiety associated with language teaching practice (Eren, 2020; İpek, 2006). Previously, several attempts were made to fill in a gap in the literature, understand the nature of this specific anxiety, and define it (Aydın, 2016; İpek, 2006). Accordingly, FLTA is a situation-specific anxiety which could be experienced by language teachers "before, during, and after teaching" related activities due to "personal, perceptual, motivational, and technical concerns" (Aydın, 2016, p. 639; Eren, 2020; İpek, 2016).

Being a significant phenomenon affecting both teaching and learning processes, the sources and effects of FLTA have been one of the dimensions studied relatively more by researchers in the last decade. Accordingly, foreign language teaching anxiety may result in less effective language instruction, refraining from experimenting with innovative teaching practices, lower levels of confidence, job satisfaction, and mental well-being (Eren, 2020; Horwitz, 1996; İpek, 2016; Kim & Kim, 2004; Numrich, 1996; Williams, 1991). On the other hand, perceived level of English proficiency, classroom and time management, fear of being evaluated negatively by practice teachers and students, being assessed by the teachers, crowded classrooms, lack of experience, and difficulty in applying theoretical knowledge into practice are some of the factors provoking anxiety among prospective language teachers (Alrashidi, 2022; Aydın, 2016; Kazazoğlu, 2020; Han & Takkaç-Tulgar, 2019; Türkmen, 2019). When in-service teachers are considered, making mistakes,

teaching a skill in which teachers do not feel proficient enough, using the native language, teaching students at particular language proficiency levels, fear of negative evaluation, being compared to fellow teachers, immediate questions and judgmental attitudes of learners, knowledge of target culture, misuse of technology by students, lack of interest among students, being unprepared for class, difficulty in retrieving information, failing in motivating students could be mentioned as sources of anxiety among in-service teachers (Aydın & Uştuk, 2020b; Dişli, 2020; İpek, 2006; Öztürk, 2016; Türkmen, 2019).

It is obvious that the teaching profession is already demanding without considering the perpetual claims which might stem from contextual or environmental factors and expected from them either by students or school management. In addition, today's competitive technology environment may place an extra burden on language teachers' shoulders since they are expected to embrace "whatever new technology comes their way" (Henderson & Corry, 2021, p. 574). Thus, to understand the effects of this constant change in the technology environment on FLTA levels of teachers, this study investigates the notions of technology integration self-efficacy beliefs and foreign language teaching anxiety.

1.2 Statement of the Problem

Technology is anticipated to be widely utilized in language education in today's digital world due to its various educational benefits. Enriching the learning environment by presenting a good variety of sources and appealing to different learning styles are two of the major benefits (Avisteva, 2019; Kılıçkaya & Seferoğlu, 2013). In addition, technology is accepted to provide plenty of authentic environments for language learning and foster interaction among learners more compared to traditional teaching materials (Özer, 2018). Accordingly, teachers are considered as key actors in revealing the possible uses of technology to enhance classroom materials and activities in accordance with students' needs and involve learners in a more meaningful learning environment. The current situation necessitates language teachers to be more qualified to be able to employ technology in their lessons effectively (Aşık et al., 2020). In addition, they are expected to adapt to new technologies and circumstances very quickly. Considering the nature of

technology which is constantly changing, evolving, and improving, what is expected from teachers is not easy and requires fulfilling certain responsibilities as practitioners (Birisci & Kul, 2019). However, as mentioned previously, to successfully integrate technology into classrooms, teachers should believe in their capabilities to utilize technology and should have a high level of TISE (Abbitt, 2011; Bandura, 1997; Heath, 2017; Inan & Lowther, 2010; Li et al., 2015; Zhang et al., 2023).

Besides technology's indispensable place in education, the emergence of COVID-19 also enforced the implementation of technology into teaching and learning processes and distance education all over the world during the very first years of the pandemic (Gomez et al., 2021; Zhang et al., 2023). Immediately, teachers had to conduct their lessons on online platforms, which necessitated an adaptation of their teaching materials and techniques to distance education (Mitchell, 2021) as well as teacher beliefs and attitudes regarding technology integration. This was a huge change and challenge to accept and adapt to for both EFL teachers and learners in a very short time. In the upcoming years after the pandemic outbreak, schools of foreign languages in Turkey adopted their systems in line with the Council of Higher Education regulations. Accordingly, while some institutions started face-to-face education in the academic year 2021- 2022, some others employed a hybrid system to deliver classes. Moreover, several institutions employed a combination of both face-to-face and online education. While increased use of technology was already a necessity for language teachers before the pandemic, these new regulations and changing circumstances also increased the workload of EFL instructors. They were expected to conduct their lessons in various forms as well as monitor their learners' adaptation and learning processes under these new conditions. However, as emphasized before, a teacher's ability to utilize technological tools effectively in his/her lessons is closely related to his/her TISE beliefs (Abbitt, 2011; Heath, 2017; Inan & Lowther, 2010; Li et al., 2015), how qualified the teacher is and the technological opportunities and support s/he has. Therefore, it is suggested that teaching and learning processes may have been affected by teachers' TISE as well.

Unfortunately, most EFL teachers had to deal with technology-related problems alone and even did not have a chance to get training regarding technology

integration. These new regulations and problems may have caused EFL instructors to feel less self-efficacious regarding technology integration. It is believed that this situation may have led EFL instructors to suffer from foreign language teaching anxiety more. Even though foreign language anxiety has been studied abundantly, research on FLTA among EFL teachers in Turkey is still limited and needs further investigation. As mentioned previously, FLTA is situation-specific anxiety experienced by language teachers. As teaching circumstances of teachers alter, new sources of anxiety may be born, and they may cause an increase in teachers' FLTA. In his review article on teaching anxiety covering various fields, Aydın (2021) concluded that technology use was a predictor of teaching anxiety and asserted that teachers' self-efficacy beliefs were closely related to the subject. However, no studies have been encountered investigating TISE and FLTA in relation to each other in the related literature. Accordingly, considering the technology's place in educational settings, the importance of TISE in the implementation of technology as well as the importance and the possible results of FLTA on learning outcomes, it is of utmost importance to investigate both of these essential notions in relation to each other.

1.3 Purpose of the Study

In line with the problem stated above, the current study aims to determine EFL instructors' levels of TISE and FLTA along with revealing any possible relationship between these constructs. Additionally, it is also aimed at finding out whether EFL teachers' TISE and FLTA significantly differ by certain demographic variables.

1.4 Research Questions

With the aim of the study in mind, the current study has been designed to address the following questions:

1. What are tertiary-level EFL teachers' technology integration self-efficacy beliefs?
2. What is the foreign language teaching anxiety level of tertiary-level EFL teachers?

3. Is there a statistically significant relationship between tertiary-level EFL teachers' technology integration self-efficacy beliefs and foreign language teaching anxiety?
4. Do perceived technology integration self-efficacy beliefs among tertiary-level EFL teachers significantly differ by:
 - a. age,
 - b. gender,
 - c. type of institution they are currently employed at,
 - d. teaching experience,
 - e. current teaching conditions,
 - f. teaching hours per week,
 - g. variety of proficiency levels they teach,
 - h. the adopted system at their current institutions,
 - i. graduation programs,
 - j. the last degree completed,
 - k. training on technology integration received from their workplaces,
 - l. effectiveness of the training they got,
 - m. facilities at their institution,
 - n. facilities of language classrooms?
5. Does foreign language teaching anxiety among tertiary-level EFL teachers significantly differ by:
 - a. age,
 - b. gender,
 - c. type of institution they are currently employed at,
 - d. teaching experience,
 - e. current teaching conditions,
 - f. teaching hours per week,
 - g. variety of proficiency levels they teach,
 - h. the adopted system at their current institutions,
 - i. graduation programs,
 - j. the last degree completed,
 - k. training on technology integration received from their workplaces,

- l. effectiveness of the training they got,
- m. facilities at their institution,
- n. facilities of language classrooms?

1.5 Significance of the Study

This study is significant in several ways. To start with, even though plenty of studies focus on evaluating TISE of pre-service teachers in various fields, TISE of in-service teachers has drawn the attention of researchers only in the last decade. Therefore, there is a limited number of studies which have been undertaken to measure in-service teachers' TISE both in the Turkish context and global contexts (Gomez et al., 2021; Hall & Trespalacios, 2019; Lailiyah & Cahyono, 2017; Mitchell, 2021; Rigi, 2015; Şen & Yıldız Durak, 2022; Yeni Palabıyık, 2013; Yıldız Durak, 2021). Additionally, besides the limited number of studies with EFL teachers in the Turkish context, there is only one study investigating TISE among EFL instructors in tertiary settings (Dinçer, 2020). Second, studies investigating TISE in relation to certain demographic variables are scarce; hence, this study may also address this gap in the literature. Next, most studies concerning FLTA focus on underlying factors of this anxiety among pre-service teachers and their coping mechanisms. There are a few studies examining FLTA among in-service teachers (Aydın & Uştuk, 2020b; Baltacı, 2017; İpek, 2006; Dişli, 2020; Eren, 2020; Kesen & Aydın, 2014; Kobul & Saraçoğlu, 2020; Öztürk, 2016; Türkmen, 2019); thus, it is assumed that the current study contributes to the related literature. Furthermore, by investigating FLTA in relation to specific variables such as teaching experience, age, and graduation programs, the current study supports previous literature by giving a chance to compare different results. Finally, when the related literature was examined, four studies were noticed that investigated EFL teachers' self-efficacy beliefs and FLTA (Eren, 2020; Güngör & Yaylı, 2012; Merç, 2015; Rani, Samad & Ali, 2022). Yet, the related literature has met no studies investigating the relationship between EFL teachers' perceived TISE and FLTA in Turkish or global contexts. In this regard, it is believed that this research, which is based on two crucial topics in foreign language teaching, will address a significant gap in the literature.

1.6 Limitations of the Study

The current study has several limitations. First, it is limited to the data collected from 226 EFL instructors working at state or private universities in İstanbul. Second, the study is limited to the data collected via Technology Integration Self-Efficacy Scale (TISES) and Foreign Language Teaching Anxiety Scale (FLTAS). Third, the findings represent the participant EFL instructors' perceptions rather than actual practices of them and it is accepted that the participant teachers comprehended and replied to the questions on the scales correctly. Finally, since this study is a descriptive one with a correlational survey design, the findings of the study reflect the answers the participants provided for the scales and the background questionnaire.

2. THEORETICAL FRAMEWORK

This section consists of two main parts. First, theoretical frameworks concerning TISE beliefs and FLTA are provided. In addition, definitions, sources, and effects of the main concepts are presented. The second part presents the literature review in regard to TISE and FLTA.

2.1 Technology Integration Self-Efficacy Beliefs among EFL Teachers

This section aims to present the theoretical framework concerning technology integration self-efficacy beliefs. First, a brief history of CALL and technology integration in language teaching is presented. Second, the TPACK framework and first and second-order barriers concerning technology integration are explained. Later, definitions for self-efficacy beliefs and technology integration self-efficacy beliefs are presented along with their effects on language teaching.

2.1.1 A Brief History of CALL and Technology Integration in Language Teaching

Education is one of the most prominent areas shaped by the technological transformation of our digital age. Even though a board marker or a pen is also accepted as a form of educational technology, computers and the Internet are the

most recent and significant technological tools of our era. Computers and/or Computer-assisted Language Learning (CALL) have been used in language teaching and learning since the 1960s (Aydin, 2013; Bax, 2003; Lee, 2000). In the United States, CALL projects started to flourish in the 1960s and early 1970s, some of which include the Programmed Logic for Automated Teaching Operations (PLATO), the Tutorial Russian project, and the Time-shared Interactive Computer Controlled Information Television (TICCIT) (Beatty, 2010; Davies et al., 2013; Otto, 2017). They were groundbreaking in that they enabled learners to reach automated media-enriched interactive practice, provided feedback, and kept records of student scores as well as their progress in the lesson (Otto, 2017). Bax (2003) identifies this early period as ‘Restricted CALL’ and suggests that this phase lasted until about the 1980s. CALL was restricted as available software and devices allowed only for uncontextualized grammar practice, closed drills, and translations (Bax, 2003; Otto, 2017). These types of exercises required minimal interaction with other learners and the teacher was there to monitor learners. Even though there was great emphasis on communication through interaction within the scope of new language teaching methods and second language acquisition theories, until the 1980s, “CALL continued to fulfill its established role as drillmaster and tutor” (Otto, 2017, p. 14).

Later, with the introduction of microcomputers, individuals and school managers had personal access to computers, and as a result, CALL software projects began to flourish in the United States, Canada, and Europe (Beatty, 2010; Otto, 2017). Bax (2003) termed this period ‘Open CALL’ as it relatively allowed limited interaction between students and computers along with other students. The focus was no longer just on drills or grammar; language teachers could use computer-based strategies for listening comprehension practice. It was possible via developments in the integration of interactive audio and videos in the available software (Otto, 2017). During this phase, simulations and games gained popularity. With an emphasis on communication skills, some of the programs of the period allowed learners to enter some language inputs, and they had the capacity to recognize and understand students (Beatty, 2010; Davies et al., 2013). During that era, the importance of authentic language grew (Davies et al., 2013), and videotape materials for language learning became widespread. Moreover, educators started to benefit from authentic

language corpora and concordances to provide examples of certain words and forms in context to their learners (Davies et al., 2013; Otto, 2017).

In the 1990s, there was a great emphasis on intercultural skills and social and political dimensions of language learning besides communication. In this period, delivering media in digital form (CD, DVD), microphones, and software recognizing speech became possible and widespread (Beatty, 2010; Otto, 2017). With the networking of computers, internet services such as email and the World Wide Web became available for language educators and learners as well. The Web began to transform the way information was delivered and varied how communication took place with its “vast digital multilingual repository of authentic media-text, images, video, and audio” (Otto, 2017, p. 17). According to Bax’s approach (2003), Open CALL lasted up until the time he wrote his article, and he defended the idea that the end goal for CALL should be the true integration of CALL into language classrooms, teachers’ practice, and students’ learning process. Technological innovation must become so normalized that it becomes “invisible” and “we hardly even recognize them as technologies” (Bax, 2003, p. 23).

With the turn of the 21st century, language instruction started to evolve since language learners started to be seen as social beings. In line with the sociocultural theory, a language learner's cognitive and linguistic development became possible via social interaction mediated by language. Thus, a change was also necessary in language instruction as well as in CALL. Since then, educational models have become more student-centered, while active and collaborative learning environments have been favored (Otto, 2017).

Multimedia and the Web still continue to grow notably today to support language learners, and new developments allow them to be active creators of “digital texts and media and (co-)constructor of knowledge, both in and out of the classroom” thanks to mobile devices (Otto, 2017, p. 19). Technology today creates opportunities for plenty of communicative, creative, and collaborative language learning experiences thanks to streaming media resources, social apps, games, course management systems, interactive versions of textbooks, public forums, and social media sites among many others (Beatty, 2010; Otto, 2017). In conclusion, it can be

claimed that CALL evolved from being a source of localized content and medium of delivery to a tool for authentic language learning experiences which can be reached anywhere and anytime thanks to networked digital means (Otto, 2017). It may now be claimed that computer-assisted language learning has matured and that we are approaching a phase of CALL that is completely integrated and naturalized (Davies et al., 2013).

However, technology is merely a tool, so its inclusion in lessons doesn't necessarily improve teachers' and students' teaching or learning experiences (Nelson & Hawk, 2020). Language teachers need to be knowledgeable about and capable of integrating technology into their lessons in line with their learners' needs and aims of the lesson. As new technology materializes, teachers are required to assess and improve their justifications and implementation strategies (Otto, 2017). Technological Pedagogical Content Knowledge (TPACK) framework developed by Koehler and Mishra (2006) is one of the significant approaches drawing attention to these concerns. It is believed that TPACK is a necessity for the successful integration of technology into classrooms.

2.1.2 TPACK Framework

As stated by Koehler and Mishra (2006), the TPACK framework is based on Shulman's (1986, 1987) pedagogical and content knowledge model, supporting the idea that both pedagogical and content knowledge is essential to make the content available and comprehensible to the learners. TPACK can be accepted as an extension of PCK with the integration of technological knowledge. At the heart of TPACK, there are three different but equally fundamental types of teachers' knowledge: content knowledge (CK), pedagogical knowledge (PK), and technology knowledge (TK). As Koehler and Mishra (2006) emphasize, they are all central to good teaching, but rather than investigating them separately; their interactions should be considered.

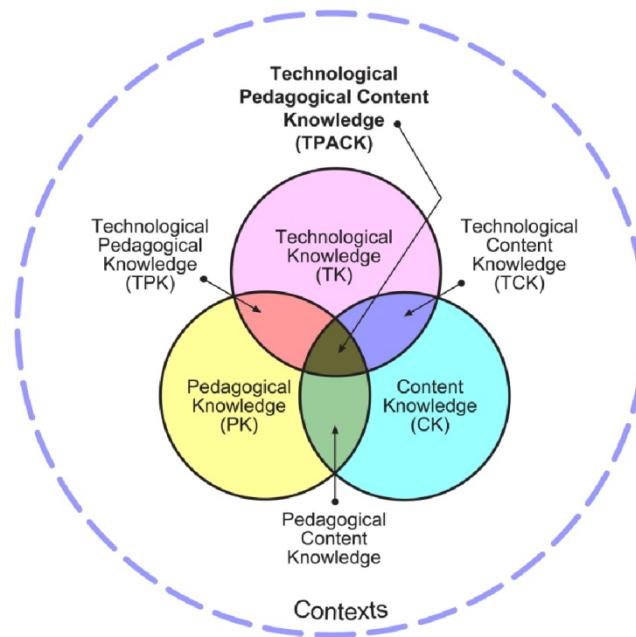


Figure 1. The TPACK framework and its knowledge components, Koehler & Mishra (2009, p. 63)

As seen in Figure 1, the interactions between CK, PK, and TK give way to other types of knowledge: technological pedagogical knowledge (TPK), technological content knowledge (TCK), pedagogical content knowledge (PCK), and technological pedagogical content knowledge (TPACK). As also stated in Yangın-Ersanlı (2016), the TPACK framework does not aim at placing technology in the center of either teaching or learning. Instead, it requires an intuitive knowledge of teaching subjects with suitable pedagogical approaches and tools (Schmidt et al., 2009). The seven components of the TPACK framework can be defined as below:

1. *Technology knowledge* is about various technologies, including low-tech tools (e.g., books, a pencil, blackboard) and digital technologies such as the Internet, smart boards, or software programs (Schmidt et al., 2009). Since technology is constantly changing, learning and adapting to new technologies is a required skill for 21st-century teachers (Koehler & Mishra, 2006).
2. *Content knowledge* is “about the actual subject matter that is to be learned or taught,” and the content varies from field to field; therefore, it is required of teachers to be knowledgeable about the subjects they are teaching, including key terms, ideas, theories, and practices (Koehler & Mishra, 2006, p. 1026).

3. *Pedagogical knowledge* refers to teachers' understanding of the procedures, techniques, or approaches to teaching and learning (Koehler & Mishra, 2009). It necessitates having a solid understanding of assessment, lesson planning, classroom management, and student learning (Schmidt et al., 2009).
4. *Pedagogical content knowledge* includes knowing what teaching strategies work with the material; and similarly, knowing how the subject's components might be structured for better teaching and learning (Koehler & Mishra, 2006).
5. *Technological content knowledge* is about understanding how technology can make a difference in the presentation and/or practice of specific content (Schmidt et al., 2009).
6. *Technological pedagogical knowledge* refers to being aware of how teaching could change as a result of adopting specific technology (Koehler & Mishra, 2006).
7. Knowledge of technology, pedagogy, and content are all combined in *technological pedagogical content knowledge* (Öz, 2015). Teachers are expected to integrate the appropriate technology into their teaching methodologies in the related content area of their fields (Schmidt et al., 2009).

As Clifford (1987, p. 10) states “students today are more computer literate and sophisticated than they were a decade ago. Unfortunately, that means they also expect more”. Since then, nothing has changed, but learners' needs, and expectations have increased with the demands of the 21st century; technology is an inseparable part of our lives and education. From a sociocultural perspective, integrating technology into lessons gives learners a chance to develop intercultural competence, especially for EFL learners (Chapelle, 2009; Liu et al., 2014). Resulting from little exposure to the target language in EFL contexts, EFL learners largely rely on technology to be exposed to authentic English, notably speaking and listening (Liu et al., 2014). Furthermore, technology is thought to enhance learning since it can transform the content into a variety of forms that appeal to students with diverse learning preferences (Angeli & Valanides, 2009). However, despite being a powerful tool, technology itself is not a transformative mechanism that will create the desired

change in the classroom by just being introduced. Instead, it is the teacher who will transform it into a useful mechanism (Angeli & Valanides, 2009). Therefore, teachers should be capable of deciding on the best technological means to teach specific content for their specific groups of learners. Teachers are expected to gain new skills born out of the integration of technology into education, in which both pre-service and in-service training play a great role.

However, TPACK is not the only concern in the successful integration of technology in classrooms as it is a multifaceted subject area. Early theories of educational transformation suggested that classroom integration would occur if teachers had access to enough resources and training (Ertmer, 1999). However, new innovations in computer technology are not effortlessly transferred into educators' existing routines. On the contrary, it requires "change along multiple dimensions of practice (e.g., personal, organizational, pedagogical)" (Ertmer, 1999, p. 73). Even though teachers are willing to integrate technology into their classrooms and are aware of its significance, they might face certain barriers ranging from personal fears, logistical and technical concerns, and organizational and pedagogical considerations that might interfere with meaningful classroom appliances (Ertmer, 1999).

2.1.3 First and Second-Order Barriers in Meaningful Technology Integration

Even though teachers are aware of its efficiency, they may be reluctant to incorporate technological tools into their classrooms for different reasons ranging from inadequate knowledge regarding new technologies, low levels of self-efficacy, teacher's existing beliefs, contextual obstacles and/or limitations (Ertmer & Ottenbreit-Leftwich, 2010). In an effort to identify and suggest ways to overcome them, Ertmer (1999) highlights first-order and second-order barriers in technology integration. First-order barriers correspond to obstacles that are extrinsic to teachers such as missing or inadequate technical equipment, training, and support in teaching and learning environments. Second-order barriers, on the other hand, may not be so easy to notice even by a teacher himself/herself as these barriers are related to teachers' beliefs about learning and teaching, views on technology, established teaching practices, and resistance to change. Since they are more personal and deeply

rooted, second-order barriers may give way to more difficulties in regard to technology integration and may interfere with fundamental change.

Ertmer and Ottenbreit-Leftwich (2010, p. 260) compare being knowledgeable about technology to “asking teachers to hit a moving target” since technological tools constantly change and evolve. It won’t be wrong to claim that teachers are constant/eternal new beginners in the technology integration process (Ertmer & Ottenbreit-Leftwich, 2010). In line with that, teachers require more than necessary equipment, knowledge, support, and training. In addition, it is important for teachers to feel competent and confident in utilizing technology to promote meaningful learning, which refers to self-efficacy beliefs for technology integration.

2.1.4 Technology Integration Self-Efficacy Beliefs

It is undeniable that students of the 21st century require new skills and knowledge to keep up with the developments of our age in every field. Even though educational systems support and ask teachers to benefit from the new ICTs greatly, the adaptation process of teachers to the new challenges might be highly personal (Govender & Govender, 2009). One of the prominent factors affecting teachers’ technology integration is their TISE beliefs.

Initially coined by Albert Bandura, self-efficacy refers to a person’s belief in his/her abilities to successfully fulfill a task (Heslin & Klehe, 2007). It is a notion that is task-specific; therefore, people may have relatively high self-efficacy beliefs for some tasks while possessing low efficacy for others. For instance, one might feel capable of giving efficient oral presentations, whereas s/he might feel less confident in writing academic essays. Self-efficacy beliefs are an evaluation of perceived competence in response to certain settings or goals rather than a consistent personality attribute (Gallagher, 2012; Pajares, 1996).

According to Bandura (1997, 2007), there are four primary sources of self-efficacy beliefs: *enactive mastery experiences*, *vicarious learning experiences*, *verbal persuasion*, and *physiological reactions*. One’s interpretations of their actual performances are believed to provide the most reliable information for evaluating self-efficacy as the individual is directly involved in the process, and it is possible to

see authentic evidence of success or failure (Bandura, 1997; Schunk & Pajares, 2009). As Bandura (1997) puts it, *enactive mastery experiences*, especially successes, help one develop a strong sense of self-efficacy. While performances perceived as successful enhance self-efficacy, those reputed as failures decrease it (Schunk & DiBenedetto, 2016). On the other hand, individuals who observe similar others performing and succeeding in a task get knowledgeable about their own capabilities and feel motivated to try the task themselves. They are inclined to presume that if others perform a task, they can do it as well; hence, *vicarious experiences* are another source of self-efficacy (Bandura, 1997; Schunk & DiBenedetto, 2016). Although not as effective and long-lasting as mastery and vicarious experiences, self-efficacy beliefs can also be promoted as a consequence of *social persuasions* (e.g., “I know you are able to manage this”) received from credible and believable others. Persuaders should be realistic while fostering the belief that success is feasible (Bandura, 1997; Schunk & DiBenedetto, 2016). *Physiological and affective states*, such as anxiety and stress, are other factors that may alter one’s perceived self-efficacy. Powerful emotional responses to a task may generate further stress, curtail self-efficacy, and eventually may lead to feared dysfunctions and inadequate performances (Bandura, 1997; Schunk & DiBenedetto, 2016). Enhancing one’s physical and emotional well-being and lowering negative emotional states are two ways to increase self-efficacy.

What makes self-efficacy a significant term is its impact on individuals’ actions. People are inclined to choose practices and tasks in which they feel self-sufficient while they refrain from tasks that they feel insecure about (Pajares, 1996; Schunk & DiBenedetto, 2016). When individuals do not believe that their actions will yield the desired outcomes, they have little motivation to carry out those behaviors. In addition, self-efficacy may also affect how much effort people will put in and how long they will endure when confronted with difficulties (Heslin & Klehe, 2007; Schunk & DiBenedetto, 2016). On the other hand, people with high perceived efficacy set goals for themselves, believe that they will succeed, overcome obstacles, and manage threats (Bandura, 2007). Therefore, self-efficacy is a significant determinant of human behavior.

With regard to the definition and description of self-efficacy in psychology, teachers' self-efficacy can be defined as their beliefs in their capability to perform certain tasks related to student learning and teaching in their specific context, to fulfill their responsibilities in their profession and to manage and control circumstances surrounding them. It is a measurement of a teacher's confidence in his or her ability to achieve the appropriate levels of student engagement and learning (Tschannen-Moran & Hoy, 2001).

As emphasized by Zee and Koomen (2016), studies imply that what makes teacher self-efficacy (TSE) such a significant notion lies in its outcomes observable in the quality of classrooms, students' achievements, teachers' effort in engaging learners through meaningful tasks, and in their classroom management skills. Bandura (1997) suggests that ensuring learning environments that support the development of cognitive competencies highly depends on teachers' abilities and self-efficacy beliefs, which in turn partly determines learners' evaluation of their intellectual capabilities.

TISE beliefs are crucial for a variety of reasons. A teacher's concerns and actions to design learning environments that effectively employ technology in the classroom are influenced by their self-efficacy beliefs toward computer use and technology (Abbitt, 2011; Heath, 2017). In line with TSE, TISE can be defined as teachers' confidence in their ability to use technology efficiently and productively, and it is acknowledged as a prominent factor in determining habits of technology use in classrooms (Wang et al., 2004). In their study, Inan and Lowther (2010) found that teacher beliefs regarding technology and their perceived readiness to implement technology directly impact teachers' practices. Similarly, self-efficacy and perceived technology skills were found to correlate with participants' use of technology by Li et al. (2015). In addition, TISE beliefs are known to help teachers overcome difficulties regarding technology integration (Heath, 2017). As stated earlier, teachers with a high sense of efficacy are known to be more open to changes and enthusiastic to try out new methods (Hoy & Spero, 2005). On the other hand, teachers with a sense of lower efficacy may find technology integration too challenging and perform avoidance behavior as it requires taking risks and experimenting with new materials and tools. Therefore, besides TPACK,

technological infrastructure, new innovations to keep up with, and technical support, self-efficacy beliefs toward technology hinder or promote teachers' technology integration into lessons. Though improved self-efficacy beliefs may not always result in the actual integration of technology among educators, they are a prerequisite for technology integration (Wang et al., 2004).

2.2 Foreign Language Teaching Anxiety in EFL Contexts

This section provides the theoretical framework in regard to FLTA. First, the definitions of anxiety, FLA, and FLTA are presented. In addition, the effects of FLA are briefly discussed. Lastly, the sources and effects of FLTA are underlined.

2.2.1 Anxiety

Apart from self-efficacy beliefs, anxiety is another factor that influences a teacher's performance. Anxiety is defined as the subjective experience and sense of tension, worry, apprehension, and uneasiness as a result of arousal of the autonomic nervous system (Horwitz et al., 1986; Spielberger, 1972) which usually presents itself in unpleasant situations. For instance, it may distract a person from a particular task, and instead cause him/her self-evaluate excessively and worry about the opinions of others and failure. In other words, when a person feels anxious, attention is divided between task-related and self-related cognition, which in turn may result in less efficient cognitive performance (MacIntyre & Gardner, 1989).

Attempting to clarify the phenomenon of anxiety, psychologist Spielberger (1972) differentiates between state and trait anxiety. State anxiety is associated with a transitory emotional state, but trait anxiety mostly corresponds to an individual's long-term predisposition to anxiety as part of their personality trait. Even though state anxiety is temporary, trait anxiety is recognized as being persistent. The notion of anxiety has also been addressed from a different perspective by Alpert and Haber (1960) which are debilitating and facilitating anxiety. Debilitating anxiety is undesirable as it interferes with the task at hand and drives a student to avoid a new learning activity, while facilitating anxiety may motivate and help individuals overcome difficulties and perform better (Scovel, 1978). Playing an important part in

individuals' lives, anxiety is also distinguished as an important affective state in educational contexts.

2.2.2 Foreign Language Anxiety (FLA)

Anxiety has been accepted as one of the affective factors playing a role in the field of teaching and learning foreign languages. MacIntyre and Gardner (1994) define language anxiety as a specific type referring to feelings of discomfort and apprehension related to second language learning and language skills -especially listening and speaking.

Mostly accepted as situation-specific anxiety in a second language context (Aydın & Uştuk, 2020a), FLA is known to be a significant factor disrupting the learning process. Anxious language learners may display avoidance behavior such as skipping class and delaying assigned homework. In addition, learners may experience worry and fear of making mistakes, concentration problems when in class or they may forget previous knowledge (Horwitz et al., 1986). Language anxiety has been most prominently associated with second language performance or success (Horwitz et al., 1986; MacIntyre & Gardner, 1989), apart from its impact on language learning processes at different phases and communication. For instance, it may intervene with test results. Even though the learner knows the answer to a specific question, s/he forgets it or may make careless mistakes during an exam (Horwitz et al., 1986). Predominantly, problems caused by anxiety are accepted to affect two skills: speaking and listening (Horwitz et al., 1986; MacIntyre & Gardner, 1989). Anxious learners may freeze during a speaking activity requiring production or may not be able to differentiate sounds and structures in the target language (Horwitz et al., 1986).

FLA is associated with three other performance-related anxieties: test anxiety, fear of negative evaluation, and communication apprehension (Horwitz et al., 1986; MacIntyre & Gardner, 1989). Since tests and quizzes are common in foreign language classes and even the most hardworking students frequently make mistakes, students who are test-anxious will likely have a tough time. A person who normally suffers from speaking in public or in groups will feel more anxious speaking in the target language when his/her performance is constantly observed

(Horwitz et al., 1986). Fear of being evaluated by the teacher or peers may deter the individual from actively participating in activities in language classrooms.

Horwitz et al. (1986) assert that FLA is unique, complex anxiety rather than a combination of the above-mentioned fears. It results from a combination of an individual's beliefs, self-perceptions, behaviors, and feelings regarding the process of language learning in a classroom environment (Horwitz et al., 1986).

2.2.3 Foreign Language Teaching Anxiety (FLTA)

Even though FLA has been addressed from learners' perspectives frequently, FLTA has caught the attention in the field quite recently. Undoubtedly, it is a topic as significant as learner anxiety since language teachers play an undeniable part in language education. Therefore, the sources and effects of FLTA have drawn the attention of researchers.

Regardless of the subject teachers teach, teaching anxiety is an important issue for the ones performing the profession. The profession of teaching is both cognitively and emotionally demanding (Horwitz, 1996). Therefore, it is likely that teachers may experience a certain amount of stress and anxiety related to their occupation. Spielberger describes teaching anxiety as a transient state which makes it different from general anxiety (1966, as cited in Williams, 1991). Further, Buitink and Kemme (1986, p. 77) call it "a momentary situational characteristic of teaching" and define the concept as "an emotional constitution that may change in intensity and may disappear with increasing experience". It is asserted by scholars that teaching anxiety is associated with everything linked to the actions of a teacher in the classroom as well as other school-related responsibilities of teachers (Buitink & Kemme, 1986).

At first, FLTA "was not seen apart from anxiety in the foreign language-learning context conventionally" (Aydın & Uştuk, 2020a, p. 45). In an attempt to highlight and identify it, Horwitz (1996) acknowledged that FLTA stems from teachers' perception of inadequate language competence. According to this perspective, Horwitz (1996) states that teachers experiencing higher levels of FLA will be inclined to use target language less in class and employ educational strategies

requiring little use of target language actively and publicly. Target language avoidance on the part of the instructor, in turn, would have major consequences for foreign language learning: students would experience less spontaneous target language usage in their lessons (Horwitz, 1996). However, the notion of FLTA is a multifaceted concept that cannot be explained by teachers' self-efficacy beliefs for language competency. Rather, it is acknowledged as a particular type of classroom anxiety related to language teaching practice (Eren, 2020; İpek, 2016). Further, Aydın (2016, p. 639) defines it "as an emotional and affective state that a teacher feels tension due to personal, perceptual, motivational, and technical concerns before, during, and after teaching activities". In summary, there is not a certain definition of FLTA that all researchers agree with. However, each description offers helpful defining characteristics. In line with what has been outlined previously, FLTA is a situation-specific anxiety which could be experienced by language teachers "before, during, and after teaching" related activities due to "personal, perceptual, motivational, and technical concerns" (Aydın, 2016, p. 639; Eren, 2020; İpek, 2016).

Although available studies on FLTA mostly focus on its sources, there are various reasons that make FLTA an important issue in the field. Studies reveal that teaching anxiety affects levels of confidence, satisfaction, and the performance of especially novice teachers and it may finally lead to less effective language instruction (Williams, 1991). As anxiety affects their instructional decisions, teachers may present avoidance behavior (Numrich, 1996) and refrain from trying more innovative teaching practices (Horwitz, 1996). Last but not least, FLTA might have a detrimental impact on teachers' job satisfaction and mental well-being (Horwitz, 1996). Therefore, regarding foreign language teaching, teacher anxiety is a crucial factor to consider since it may destructively affect language education and its essential components – teachers and learners- (Kim & Kim, 2004).

A substantial body of previous research has focused on the sources of FLTA. Among several sources of it, having to speak in the target language, worry about target language performance, grading procedures, fear of making mistakes, teaching a specific language skill, teaching students at a certain proficiency level, inexperience in the profession, holding a perfectionist attitude toward target

language, lack of pedagogical knowledge, using the native language during a class, being compared to other teachers, negative student behavior, teaching grammar, commonly trigger anxiety among language teachers (Horwitz, 1996; İpek, 2006; Kim & Kim; 2004; Kunt & Tüm, 2010; Numrich, 1996; Öztürk, 2016). Furthermore, Kim and Kim (2004) emphasize that different skills, qualities, and techniques expected from and needed by language teachers may result in higher levels of FLTA. As stated earlier, teaching is already a demanding profession; however, the requirements and responsibilities evolving every day may also place a burden on language teachers. Without having TPACK, experimenting with new technologies, educational and technical support from workplace, teachers may feel overwhelmed with what the 21st century has provided and even imposed. Therefore, low self-efficacy for technology integration may alleviate foreign language teaching anxiety. To this end, this study aims to investigate the relationship between two concepts.

2.3 Literature Review

This chapter presents a review of the related literature on technology integration self-efficacy and foreign language teaching anxiety. First, it presents a summary of studies focusing on TISE in relation to various variables among pre-service and in-service teachers. Next, it reviews studies on FLTA with different variables such as factors leading to this anxiety and the coping strategies of teachers.

2.3.1 Technology Integration Self-Efficacy Beliefs

When the related studies are reviewed, it is observed that there are numerous studies investigating TISE among all subject areas. While some studies mainly explore TISE levels of teachers, it is also explored in relation to TPACK, professional development, language proficiency, and various interventions such as vicarious experiences, teaching practice, and courses studied at the tertiary level education in other studies. Most of the research in this section utilized TISES by Wang et al. (2004) as a data collection instrument.

Some studies mainly investigate TISE levels of teachers. Some of them also explore TISE in terms of demographic variables such as age, gender, experience, and subject area. Accepting self-efficacy for technology integration as a vital issue, Caner

and Aydın (2021) aimed to explore the self-efficacy beliefs of 439 prospective teachers registered in teacher education programs at a state university in their non-experimental quantitative research. The participant pre-service teachers were registered at English language, Primary school, Turkish language, and Science teacher education programs. The study revealed that although TISE of prospective teachers was high in general, self-efficacy of students enrolled in the Science teacher education program was higher than other students. In terms of grade, senior students showed greater self-efficacy beliefs when compared to other grades. However, regarding gender, no significant difference was realized. In a similar vein, Rigi (2015) carried out research to investigate Iranian in-service EFL teachers' TISE and factors affecting their technology integration practices. Data collection tools consisted of two scales and semi-structured interviews with 12 participants. However, quantitative data were collected from 30 teachers employed at high schools. Although participants had high levels of self-efficacy, their self-perception of English proficiency was higher. Furthermore, the EFL teachers felt less confident in addressing student needs regarding technology when compared to their self-efficacy regarding implementing technology into their instruction. No information was provided regarding the relationship between participants' TISE and perceived language proficiency. The researcher highlighted perceived student attitudes, teachers' previous knowledge on how to use technological tools, intensive course load, environmental obstacles such as lack of Internet access or inefficacy of students in using technology, and teachers' personal attitudes toward the use of instructional technology as factors that have an impact on teachers' practices. Lastly, interview data revealed that although teachers had high levels of self-efficacy, their actual practices were very limited. In another paper, emphasizing that there is a gap in the studies regarding TISE in the Indonesian EFL context, Lailiyah and Cahyono (2017) did a case study with the participation of 23 EFL teachers. Data collection tools included a scale and interviews. Analysis of the quantitative data revealed that participants mostly had a high level of TISE. Teachers' self-efficacy did not show a significant difference in relation to gender and graduation degrees (bachelor's or master's). However, there was a notable difference in self-efficacy levels in relation to participants' age and teaching experience. Teachers who were 31-50 had higher

levels of self-efficacy when compared to teachers who were 50+. In line with this, teachers having a teaching experience of less or twenty years had higher levels of TISE than participants who had been teaching for more than twenty years. Furthermore, Gomez, Trespalacios, and Yang (2021) conducted a descriptive study with the participation of 327 teachers with the aim of examining TISE beliefs, technology use, and integration efforts of teachers who work in urban K-12 classroom settings in Southern California. The researchers utilized a scale that was developed by the first researcher in line with the 2017 ISTE (International Society for Technology in Education) Standards. The analysis of the data indicated that the participants had fair/medium levels of confidence in using technology and incorporating technology into their teaching practices. The researchers finalized their paper by emphasizing the necessity of professional development programs which address teachers' TISE and competency. To summarize, it can be stated that gender and graduation degrees did not create a significant change in these specific studies. However, age and teaching experience were important factors in deciding participants' TISE. Generally, participants had medium to high levels of TISE.

A substantial amount of research was conducted to examine TISE in relation to various interventions such as vicarious experiences, teaching practicum, and courses delivered at teacher education departments to observe any change in TISE or any possible relationships between different constructs. For instance, in their study, Wang et al. (2004) investigated the impact of vicarious learning experiences and goal setting on pre-service teachers' TISE. While a group of prospective teachers was exposed to the technology integration practices of six K-12 teachers via VisionQuest, other teachers did not observe them. At the end of their study, the researchers found a greater increase in the perceived self-efficacy of preservice teachers who were exposed to vicarious experiences regarding the successful integration of technology compared to prospective teachers who did not have a chance to observe these experiences.

In a similar vein, several studies were conducted to explore the impact of teaching practicum on pre-service teachers' TISE. To exemplify, Al-Awidi and Alghazo (2012) carried out a mixed-method study to investigate the impact of teaching experience on prospective teachers' TISE and the sources of their beliefs

about technology integration in the UAE context. Sixty-two female prospective teachers participated in the study and completed a pre-and post-test survey during the first and last week of their teaching experience. To explore sources of TISE, semi-structured interviews were made with 16 of the participants with high survey scores. A significant increase in per-service teachers' TISE was found when pre and post-tests were compared. Sources of self-efficacy included participating in projects regarding technology integration in previous courses, experimenting with new ideas in these courses, observing cooperating teachers and peers implementing technology, discussions with peers and experts, and receiving positive feedback and encouragement from supervisors and cooperating teachers. On the other hand, some participants mentioned lack of technical support and Internet connection, the need for more time and effort to successfully integrate technology, and fear of technical problems as demotivating factors. Similarly, Ünal et al. (2017) did a study to investigate the effects of the teaching practice on pre-service elementary teachers' TISE levels and sources of technology integration self-efficacy. In their mixed method study, 43 prospective teachers took part and they filled in the TISE survey before and after their practicum. Furthermore, the researchers carried out semi-structured interviews with 13 participants. There was a considerable increase in prospective teachers' self-efficacy level following the teaching practice course. It was revealed that while all sources of self-efficacy were effective on pre-service teachers' TISE levels, mastery experiences of teachers had the highest impact on their TISE development. Furthermore, believing in the necessity to prepare pre-service teachers to make use of technology in their classes, Han et al. (2017) also conducted a study to investigate the effect of teaching experiences on prospective teachers' pedagogical beliefs regarding technology integration, their TISE, and their intention to use technology. To this end, 55 prospective teachers from different subject areas filled in a pre-and post-survey. In terms of their technology integration pedagogical beliefs, researchers divided the participants into two as traditional and constructivists. As a result of the analysis, it was found that technology-centered teaching practices advanced the self-efficacy levels of participant teachers regardless of teacher beliefs. In brief, studies in the literature agree that teaching practice helps

prospective teachers improve their technology integration skills, and as a result, their TISE increase as well.

As mentioned previously, some studies particularly focused on the impact of specific courses or activities delivered or implemented at participants' departments to investigate their effect on prospective teachers' TISE beliefs. For instance, Lee and Lee (2014) conducted a study with 136 pre-service teachers to find out how to improve prospective teachers' self-efficacy through course activities such as lesson planning practice, instructional media development, and lecture on technology integration. Additionally, the researchers aimed to investigate direct and indirect influences of computer use, teachers' attitudes towards computers, and changes in their attitude toward their TISE. The prospective teachers were registered in a technology integration course during the data collection process. The data of the study were compiled through two scales (employed as a pre-test and post-test), lesson plans, and test results of the course. As a result of the analysis, Lee and Lee (2014) concluded that the prospective teachers who were more competent at lesson planning and had more positive attitudes toward computers displayed better TISE. In another study, Kayaduman and Delialioglu (2017) examined 24 pre-service English teachers' TISE beliefs who were treated by "Learning Technology by Design (LBD)" activities. All students were enrolled in the course "Instructional Principles and Methods" and the activities students engaged were aligned with the course objectives while Web 2.0 tools were used. After the analysis of their data, the researchers found a significant increase in prospective teachers' self-efficacy beliefs for technology integration. Furthermore, the analysis of interview data indicated that participant teachers felt confident to employ Web 2.0 tools in their classes, evaluate their learners by using Web 2.0 tools, and help them use Web 2.0 tools. Similarly, Bakac (2018) conducted a mixed-method study with 131 prospective teachers to investigate the impact of self-directed learning tendencies on TISE beliefs. The pre-service teachers were registered in the course "Instructional Technologies and Material Design" and they filled in a pre-test and post-test before and after the course. The data collection tools included two scales and focus group interviews. The analysis of the data revealed that prospective teachers' self-directed learning attitudes had a significant impact on their TISE at a low level at pre-test and a high level of

post-test grades. Likewise, Aljohani (2022) carried out a study to measure prospective teachers' TISE before and after using a web 2.0 tool -Wikispaces Classroom-, their perceptions of employing web 2.0, and factors affecting their self-efficacy. In his mixed method study, the researcher employed TISES, group interviews, and an open-ended questionnaire to gather data. Forty-four participants answered the TISES as a pre-test and post-test, and 11 had interviews with the researcher. The study's quantitative findings indicated that teachers' TISE increased after four months of using Wikispaces Classroom. The qualitative data analysis revealed that teachers found the use of interactive website facilitated their teaching and students' learning process. It enhanced teaching and learning methods and improved the efficacy of both teachers and learners. Regarding the factors affecting teachers' perceptions of TISE, the researcher categorized them as internal and external. Low-level academic qualifications, willingness to accept and embrace change, students' beliefs and behaviors regarding the use of interactive website technology, inadequate training, experience, mastery, and accessibility of resources can be mentioned as some of the significant findings. Lastly, Zhang et al. (2023) investigated the relationship between 204 prospective teachers' TISE, their actual acquisition of ICT competencies, and their perceived use of online self-regulated learning (SRL) strategies. Participants were registered in an introductory educational technology course at the time of the study. During the last week of the semester, pre-service teachers were sent a survey to fill in. The data collection tools included this survey and pre-service teachers' course performance records for ICT competencies. Data analysis revealed that TISE beliefs of pre-service teachers did not directly have an influence on participants' use of and achievement in ICT. However, TISE directly affected five subcategories of SRL strategies, namely goal setting, help-seeking, task strategies, environmental structuring, and time management. Lastly, goal-setting strategies were found to be a significant mediator between self-efficacy beliefs and ICT competencies.

To highlight some points, studies in the literature reveal that TISE beliefs have started to be investigated from different perspectives such as self-directed learning tendencies and self-regulated learning strategies in the last years. Furthermore, lectures and/or providing a chance to implement new technologies

appear as various interventions in technology integration self-efficacy research. In short, studies in the literature present that courses delivered at teacher education programs and specific activities designed in relation to the implementation of a specific technology may have a positive impact on pre-service teachers' TISE beliefs. Teachers who have a chance to experiment with new technologies feel more confident after the process (Kayaduman & Delialioglu, 2017) and exhibit more positive attitudes toward technology integration (Lee & Lee, 2014) as they find it enhancing the teaching and learning practices (Aljohani, 2022).

Next, there are numerous studies that address TISE beliefs and the TPACK framework. While the majority of these studies were conducted with the participation of prospective teachers, there are studies conducted with in-service teachers as well. Aiming to investigate the relationship between TPACK and TISE, Abbitt (2011) conducted a study with 45 pre-service teachers registered in a teacher preparation program in early childhood education. The teacher candidates were enrolled in a course on technology integration at the time. As a result of this pre-test-post-test design study, the researcher found a meaningful positive correlation between TPACK and TISE beliefs. Moreover, Abbitt (2011) came up with a higher positive correlation between the constructs when pre and post-test results were compared. In a similar vein, Keser et al. (2015) carried out research to examine TPACK competencies and self-efficacy beliefs of 713 freshmen and senior students enrolled in different departments at the faculty of education. As a result of their quantitative study, the researchers concluded that there was a high-level positive correlation between TPACK competencies and TISE. Furthermore, there was not a statistically meaningful difference in TISE based on gender. However, in terms of grade, senior students had higher levels of self-efficacy than freshmen. In another study, Şimşek and Yazar (2019) compared TPACK-ISTE self-efficacy scores of 3553 pre-service teachers enrolled in different subject areas and investigated correlations between some variables that influence their training to integrate technology. The research data were compiled via two scales, one on TPACK-ISTE and the other including variables about implementing technology into classroom instruction. As a result of the analysis, the researchers concluded that prospective Foreign Language teachers had the highest scores of TPACK-ISTE, whereas teachers in Mathematics and

Turkish language had lower scores when compared to other subjects included. In addition, in terms of variables regarding the training of teacher candidates, “teacher educators as role models” and “access to technology resources” had the lowest mean scores, which means that participant teachers did not see teacher educators as their role models in terms of technology integration and they did not find accessing technological resources easily. As the last study carried out with pre-service teachers in this literature review, Birisci and Kul’s (2019) is worth mentioning. Believing that TISE is an essential factor in the successful implementation of technology into educational settings, the researchers conducted a correlational study to examine the prediction levels of the techno-pedagogical education competency for TISE beliefs of 174 pre-service teachers. The researchers observed that pre-service teachers had high levels of TISE. Additionally, the analysis revealed that there was a positive and high-level relationship between the TPACK competency levels and TISE beliefs.

When the related literature is reviewed, there are studies investigating TISE in relation to TPACK among in-service teachers. For instance, Dinçer (2020) investigated EFL teachers’ TPACK levels, TISE beliefs, and the predictive relationship between the two constructs. One hundred and one in-service EFL teachers working at tertiary level participated in this quantitative study. The researcher found that in-service EFL instructors had high TPACK and technology integration self-efficacy beliefs. Although participant teachers had high levels of self-efficacy regarding the successful implementation of technology into their instruction, they felt less confident in skills requiring technical expertise such as dealing with system constraints and helping others who experience difficulty with technology. Furthermore, analyses revealed a meaningful predictive relationship between participant teachers’ TPACK level and TISE beliefs. In a different study, Yıldız Durak (2021) investigated the relationship between 401 in-service teachers’ TPACK and their TISE, usage objective of social networks, and their technology literacy. As a result of her relational screening model study, TISE was found to be the most significant predictor of TPACK levels of teachers. No direct and meaningful relationship was encountered between TPACK, social media usage, and technology literacy scores. Believing in the significance of the TPACK framework and variables such as self-efficacy, outcome expectations, interest, and intentions regarding

technology integration, Dikmen and Demirer (2022) aimed to examine the relationships between the above-mentioned variables. In this study which adopted a structural equation modeling, 850 in-service teachers took part voluntarily and answered a questionnaire. The results demonstrated that technological knowledge of participants had the most direct impact on their TISE, and the highest impact on their interest to use educational technologies. In addition, the researchers found that TPK and TCK directly affected teachers' TISE. Furthermore, the research results revealed that TISE indirectly affected participant teachers' intentions to use educational technologies.

As the literature review suggests, TPACK and TISE have been studied among both in-service and pre-service teachers frequently, and it is possible to suggest that both constructs have started to be investigated in relation to different variables such as social media usage, outcome expectations, and intention to use technology as well. In brief, correlational studies examining TPACK and TISE beliefs prove that there is a significant positive and predictive relationship between the two constructs.

In recent years, technology integration self-efficacy beliefs have been studied in relation to lifelong learning tendencies and professional development opportunities among in-service teachers. For instance, Şen and Yıldız Durak (2022) carried out a study to investigate the relationship between lifelong learning inclinations, TISE, and professional competencies of in-service teachers. Five hundred and sixty one English teachers affiliated with the Ministry of National Education voluntarily took part in this descriptive study and they answered a survey. As a result of the analysis of the compiled data, male teachers had a higher level of TISE than their female colleagues. In terms of age and type of institution, teachers between 20-30 and participants who worked at private institutions were found to have higher levels of TISE. Furthermore, the self-efficacy score of English teachers in implementing technology and professional competencies positively correlated with participant teachers' lifelong learning tendencies. Furthermore, believing in the importance of personalized learning in the successful integration of technology, Hall and Trespalacios (2019) carried out a longitudinal study with the participation of 418 in-service teachers. However, only 247 teachers answered both pre-and post-program surveys. The

personalized professional learning (PPL) programs comprised obligatory and elective courses, which teachers completed at their own pace in face-to-face or online environments over two months. Additionally, the participants implemented their plan the following school year under the guidance of educational technology trainers as a part of their PPL. While the participants filled in the pre-survey before the program, they answered the post-survey after the first term of the educational year. The analysis of the survey data presented a considerable increase in both teachers' technology skills scores and TISE. Lastly, emphasizing the role of professional development and learning opportunities in TISE of educators, Mitchell (2021) conducted a mixed-method case study. Seventy-nine elementary school teachers participated in her study. As the researcher explained, the participant teachers had access to numerous types of professional development opportunities on technology at their workplaces. The data of the study were collected through TISES, personal interviews, and focus group discussions. As a result of quantitative data analysis, the participant teachers were divided into three levels: low, medium, and high technology self-efficacy. While 26.9% of the participants fell in the band "low", 26.9% of the respondents scored in the high range. 46.2% of the participants which constitute the largest proportion scored in the medium technology self-efficacy range. Furthermore, teachers with the least amount of experience had low levels of self-efficacy, whereas teachers with a teaching experience of 11-15 years had high levels of self-efficacy. Teachers with experience of 16-20 and 21+ years, mostly fell into medium level range. The qualitative data of the research shed light upon the factors which affected teachers' level of TISE. Accordingly, the participants mentioned work-related factors such as peers as support and barrier, technology coach as support, lack of knowledge and time as barriers. Personal factors comprised support from family members and social media usage. Peer support, technology coach assistance, and lack of time were commonly mentioned as factors affecting technology integration by teachers from all levels. Both during the interviews and group discussions teachers highlighted that professional development opportunities regarding technology integration should be more targeted, and specialized, and there should be follow-up activities; they should help them increase their knowledge and

access to technology resources and instructional tools, and they should encourage collaboration among staff.

To highlight some points, the literature sheds light upon a relatively new inclination in TISE research. In brief, Şen and Yıldız Durak (2022) found a meaningful positive relationship between participants' lifelong learning tendencies and TISE. In a similar vein, the study by Hall and Trespalacios (2019) revealed a significant increase in participants' self-efficacy beliefs and technology skills scores after a personalized professional learning intervention. The study by Mitchell (2021), on the other hand, emphasizes factors affecting in-service teachers' self-efficacy beliefs and their expectations from professional development opportunities offered at workplaces. Furthermore, while one of the studies revealed teachers who are 20-30 years old had the highest level of TISE, another study concluded that teachers with an experience of 11-15 years had the highest self-efficacy scores. Although no relevant information was provided in other studies, one of them informed that male teachers had higher levels of TISE than their female colleagues.

Lastly, TISE was investigated in relation to language proficiency in a Turkish EFL setting. Yeni Palabıyık (2013) conducted a study to examine in-service EFL teachers' TISE and their perceived English language proficiency. Furthermore, she also enquired about factors affecting technology implementation and actual practices of teachers regarding technology integration. One hundred and fourteen in-service EFL teachers took part in this mixed-method study. Additionally, 14 volunteer teachers were interviewed, while three of them were also observed in the classroom environment. The analysis of the data revealed that participant teachers' TISE and level of English proficiency were high. There was a meaningful positive correlation between the two constructs. Concerning demographic variables, it was observed that as teachers' computer use in years increased, they showed higher TISE. Regarding gender, female teachers had slightly higher levels of self-efficacy beliefs. Finally, regarding classroom observations, the researcher thought there was a mismatch between actual classroom practices and teachers' TISE.

2.3.2 Foreign Language Teaching Anxiety

Several studies in the literature focus on foreign language teaching anxiety among English language teachers. Most of these studies include pre-service teachers as participants, and they investigate anxiety-provoking factors among prospective teachers and their coping mechanisms. On the other hand, studies including in-service teachers are limited, and they are either descriptive or mixed-method studies investigating the sources of FLTA. Additionally, FLTA is investigated in relation to certain variables such as teaching experience, gender, age and so forth. Moreover, it is observed that there are a few studies comparing FLTA of pre-service and in-service teachers. Finally, FLTA is explored in relation to self-efficacy beliefs among pre-service and in-service teachers in the literature.

First, several studies have focused on sources of FLTA and practices of pre-service teachers to cope with this anxiety. For instance, Han and Takkaç-Tulgar (2019) conducted a qualitative study to investigate the FLTA of 32 pre-service teachers before, while, and after experiencing teaching English as part of their practicum teaching in the elementary school setting(s). The data collection tools included a background questionnaire, peer-observation field notes, self-report forms in the form of open-ended questions, diaries, and interviews with the participants. After analyzing and coding the data, it was revealed that participant teachers suffered from anxiety before, while, and after their teaching practices. Fear of making mistakes, time management, classroom management, building a good rapport with students, and lack of teaching experience were decided to be factors causing teaching anxiety before their practice. Getting advice from their mentor or cooperating teachers, practicing beforehand, chatting with friends, and preparing many different materials were among their coping strategies. On the other hand, during their teaching time, they suffered from teaching anxiety resulting from teaching in English, classroom management, time management, mentor observation, fear of making mistakes, and voice control. Their coping strategies included not thinking about being observed, activating students, following lesson plans, switching to Turkish, and getting help from body language. Lastly, the prospective teachers' anxiety after teaching mainly resulted from being evaluated and graded as well as

having a good impact on their mentors and students. In a similar vein, Aydın (2016) conducted a study with 60 prospective EFL teachers and explored the sources of FLTA. The participant teachers took the courses Teaching Language Skills 1 and 2 during the fall and spring semesters of the educational year 2013- 2014. Besides the lecture sessions, participant teachers also practiced teaching in a simulated classroom environment within the scope of the course. The study's data were collected through a background questionnaire, reflections as essay papers, and interviews. The researcher concluded that pre-service teachers experienced FLTA before and after teaching as well as during their teaching. Other findings of the study pointed out that teachers' personalities, perceived level of English proficiency and content knowledge, fear of negative evaluation, technical concerns, lack of learners' motivation, lack of experience in teaching, and teaching demotivation were the factors leading to FLTA. Furthermore, Kazazoğlu (2020) carried out a case study to investigate senior English Language Literature students' FLTA and coping strategies who were registered in a teaching certificate program at a Turkish state university. Fifty senior students and nine mentors took part in the research. Both pre-service teachers and mentors were encouraged to depict factors leading to anxiety and reducing strategies. Data collection tools included student diaries, micro-teaching videos, and interviews with open-ended questions. Accordingly, Kazazoğlu (2020) grouped the prospective teachers' sources of anxiety as classroom management, fear of negative evaluation by the mentors, public speaking anxiety, being observed by the students, and lack of experience. Common coping strategies included making eye contact with the mentor to get encouragement and seek support, switching to the mother tongue, avoiding eye/physical contact with students, changing the subject, and sitting at the teacher's desk. Recently, Alrashidi (2022) conducted another qualitative study to better understand and investigate the sources of FLTA among pre-service English teachers in the Saudi Arabian context. Fourteen pre-service male participants took part in the study. They were teaching English as part of their practicum under the supervision of educators from their university and cooperating teachers from the practicum school. The data of the study were collected via semi-structured interviews. The thematic analysis of the data revealed six themes: fear of making mistakes, fear of negative evaluation (by students, supervisors, and

cooperating teachers), teaching unfamiliar topics, lack of preparation, and crowded classrooms.

As the studies referred above highlight, FLTA is a common experience among prospective teachers. It can be concluded that perceived level of English proficiency, classroom and time management, fear of being negatively evaluated by practice teachers and students, being assessed by the teachers, crowded classrooms, and lack of experience in teaching are some of the factors that might provoke anxiety among prospective teachers. Two of the studies above (Han & Takkaç-Tulgar, 2019; Kazazoğlu, 2020) also investigated the coping strategies of prospective teachers. Switching to mother tongue and seeking help/ encouragement from mentors or cooperating teachers can be mentioned as common practices of pre-service teachers.

Next, there are various studies that investigate FLTA among in-service teachers. For instance, emphasizing that FLTA is a different construct from foreign language anxiety and in an attempt to develop a valid scale to measure it, İpek (2006) conducted a study. First, the researcher collected data via diaries and semi-structured interviews from 32 in-service EFL instructors employed at a state university. Seventeen of the teachers wrote diaries for nine weeks, while 11 of them wrote diaries and had interviews for five weeks. Four of the participants, on the other hand, were interviewed for nine weeks. As a result of content analysis, teaching a specific language skill, making mistakes, teaching students at certain language proficiency levels, fear of failure, using the native language, and being compared to fellow teachers were acknowledged as anxiety-provoking factors. With the guidance of what previous research suggested as well as the findings of her study, the researcher constructed the FLTAS. Furthermore, Kesen and Aydın (2014) carried out a descriptive study with the participation of 30 teachers who were employed at a private university. According to the results, there was a considerable difference between novice and more experienced teachers. The analysis revealed that novice teachers were more anxious. No meaningful difference was observed in anxiety levels in relation to gender. Similarly, Öztürk (2016) explored FLTA among 103 non-native English teachers working in tertiary-level teaching contexts in his mixed-method study. The researcher employed the scale developed by İpek (2006) for the quantitative part of the study and had interviews with 10 participants to identify

factors leading to FLTA. The data analysis revealed that instructors had a moderate level of anxiety, and using Turkish in the classroom and teaching a specific skill in which they did not feel competent enough made teachers anxious the most. Regarding demographic variables, there was not a significant difference between male and female participants. Furthermore, the educational background of the participants (holding a BA or MA degree) did not create a meaningful difference as well. However, more experienced teachers suffered from less FLTA when compared to teachers with 4-6 and 7-9 years of experience. Analysis of the qualitative data indicated that knowledge of the target language -namely advanced vocabulary items, pronunciation, and listening comprehension-, student-related factors such as immediate questions and judgmental manners of learners, and knowledge of target culture were found to be the main factors leading to FLTA.

With the aim of investigating in-service EFL teachers' FLTA, Dişli (2020) conducted a mixed-method study with the participation of 151 teachers employed at 18 different high schools. While all participants replied to a questionnaire, 20 of them also had interviews with the researcher. The findings of the descriptive analysis revealed that teachers experienced a moderate level of anxiety while teaching English. In terms of gender, no significant difference was observed in FLTA values. On the other hand, FLTA showed a difference with regard to teaching experience. While teachers who had an experience of 14-24 years suffered from FLTA the least, teachers with an experience of 1-5 years had the highest level of anxiety. In terms of graduation programs, graduates of English Language and Literature were found to be the most anxious group among graduates of ELT, American Culture and Literature, Translation and Interpreting, and Linguistics. Analysis of the qualitative data revealed six different groups which were factors related to teaching at a particular language school, teaching students at a certain level, using native language, learners' attitudes, making mistakes, and misuse of technology by the learners, which was new to the literature. Lastly, with an aim of giving a cross-cultural understanding of FLTA, Aydın and Uştuk (2020b) conducted a descriptive study with 156 teachers from different countries where English is taught as a foreign language. The participant teachers' teaching contexts (primary, secondary, high schools, higher education institutes) and school types they were employed at (public schools and

private institutions) also showed variance. Analysis of the data revealed that participant teachers had a low level of FLTA overall. They suffered from a moderate level of anxiety stemming from a lack of interest among learners, fear of negative evaluation by mentors, and being unprepared for classes. Additionally, they had a low level of teaching anxiety mainly due to their perceived English proficiency, time management problems, and negative evaluations by students. Regarding demographic variables, participants' degrees of graduation did not create a meaningful difference in FLTA levels. On the other hand, male teachers were more worried than female teachers. Younger teachers experienced more anxiety than older participants in relation to their language proficiency and making mistakes. Regarding school levels, teachers employed at high schools were more anxious about making mistakes. Participants employed at public schools suffered from a higher level of anxiety regarding use of English in class, being unprepared for class, and time management, whereas less-experienced teachers had higher levels of anxiety regarding fear of negative evaluation, making mistakes, English proficiency, and teaching inexperience.

As the reviewed literature suggests, FLTA among in-service teachers has been studied in relation to various demographic variables such as gender, teaching experience, educational background, and graduation programs in general. Additionally, they aim to determine the anxiety levels of in-service teachers. Accordingly, in-service EFL teachers suffer from varying degrees of FLTA. However, the results of the studies reveal that teachers with a teaching experience of 1-5 years have higher anxiety levels than more experienced teachers. While studies found no meaningful difference in FLTA levels in terms of gender, male teachers were more anxious in Aydın and Uştuk's (2020b) study. There was no significant difference in participant teachers' FLTA levels regarding educational background.

Third, another group of studies in the literature aimed at comparing FLTA experienced by pre-service and in-service teachers. For instance, Baltacı (2017) carried out a descriptive study with the participation of 30 in-service and 30 pre-service teachers. In-service teachers were employed at a private university as language instructors, whereas pre-service teachers were senior students of an ELT program at a state university. The results indicated that although both groups suffered

from FLTA to some degree, pre-service teachers were more anxious. They had less self-confidence, were more worried about negative evaluations, and experienced more communication apprehension. In the same vein, Emphasizing the importance of FLTA and the scarcity of studies in the field, Kobul and Saraçoğlu (2020) examined the FLTA of both pre-service and in-service teachers in their descriptive study. There was not a meaningful difference between in-service and pre-service teachers regarding FLTA. Similarly, FLTA levels of participant teachers did not significantly differ in terms of gender; however, female participants were found to have slightly higher levels of anxiety. With regard to the departments participants attending or graduated from, FLTA did not differ between departments of ELT and ELL. Still, graduates and students of ELT had slightly higher levels of FLTA. On the other hand, in-service teachers graduating from ELT programs had significantly lower levels of anxiety than pre-service ELT and ELL students. Department differences did not lead to a significant change in FLTA levels of in-service teachers. Further, the results of the study also revealed a negative and meaningful correlation between participants' age, years of teaching experience, and FLTA.

Türkmen (2019) started research with two purposes in mind. First, she aimed to create a taxonomy of FLA and FLTA. In line with this, the researcher divided anxiety-provoking factors and coping strategies into cognitive, affective, and socio-cultural categories. Second, the researcher conducted a qualitative case study on FLTA with the participation of 35 pre-service and 30 in-service teachers. The prospective teachers were senior students studying at a state university, while in-service teachers were employed at schools directed by the Ministry of National Education. The researcher employed semi-structured interviews, open-ended questions in written form, and focus group interviews to collect data. With a careful process of content analysis, the researcher came up with situations that provoke anxiety and the coping mechanisms of teachers. The analysis highlighted that both in-service and pre-service teachers suffered from anxiety due to fear of making mistakes and problems related to classroom management. While both pre-service and in-service teachers suffered from anxiety mostly due to difficulty applying theoretical knowledge into practice, in-service teachers also experienced anxiety resulting from difficulty retrieving information. Furthermore, pre-service teachers

experienced anxiety as a result of a lack of self-confidence, losing students' interest, being a novice teacher in the eyes of students, difficulty in organizing classroom activities, and student disciplinary issues. On the other hand, in-service teachers experienced FLTA due to being unable to teach effectively, fear of being an ineffective teacher, and failing to motivate students, being a novice teacher in the view of parents.

In short, the related literature reveals that there are two descriptive and one qualitative case study investigating FLTA of both in-service and pre-service teachers. The two descriptive studies contradicted in terms of the FLTA levels of prospective teachers and in-service teachers. While one of the studies did not find a meaningful difference in FLTA levels, prospective teachers were found to be more anxious in the other study. Similar to the findings in previously reviewed studies, a significant negative correlation was found between FLTA and years of teaching experience. On the other hand, the qualitative case study reveals that both prospective and in-service teachers may suffer from FLTA from fear of making mistakes, classroom management problems, and difficulty in applying theoretical knowledge into practice.

Lastly, FLTA has been studied in relation to teacher self-efficacy beliefs among pre-service and in-service teachers in a few studies. For instance, Güngör and Yaylı (2012) carried out a study to determine pre-service EFL teachers' TSE and FLTA and to evaluate the relationship between the two constructs. In their correlational study, 77 prospective EFL teachers from three different state universities took part after they completed their practicum. The researchers found that pre-service teachers had a high level of perceived self-efficacy and a moderate level of FLTA. There was a low-level negative correlation between TSE and FLTA. Gender did not create a statistically meaningful change in self-efficacy beliefs and anxiety overall. However, male teachers were less worried about their target language proficiency and teaching listening. Furthermore, participants with overseas experience and having attended professional development programs were found to have lower anxiety levels regarding their English and teaching in English. In a similar vein, Merç (2015) conducted a mixed-method study with 117 prospective teachers who completed their teaching practicum. Data collection tools comprised

two scales and semi-structured interviews. The descriptive analysis highlighted that prospective teachers experienced a low level of anxiety and had a high level of self-efficacy. A moderate negative correlation was found between TSE and FLTA. Female teachers were more anxious; however, no significant difference was found regarding self-efficacy between female and male teachers. Furthermore, prospective teachers teaching in high schools were more anxious about managing the class than participants teaching at primary schools. Qualitative findings of the research suggest that pre-service teachers felt themselves efficient when they experienced less anxiety whereas they suffered from anxiety more when they felt inefficient.

Likewise, one descriptive and one mixed-method study was conducted with in-service teachers. Believing that there was a gap regarding FLTA experienced by in-service teachers, Eren (2020) conducted a descriptive study. One hundred and eighty non-native and 53 native EFL teachers working at the tertiary level participated in Eren's (2020) research. The results of the descriptive study displayed that participants had a high TSE level and experienced low FLTA levels. A small to medium negative correlation was found between TSE and FLTA. Both native and non-native female teachers had higher levels of FLTA. A significant mean difference was observed in foreign language teaching anxiety scores of different age groups. Non-native instructors who were 25-34 had higher levels of anxiety than instructors who were 35-44 and 45-54. Additionally, graduates of ELT programs had higher scores of FLTA than teachers who graduated from other English language departments. No significant difference between B.A., M.A., and Ph.D. was found in terms of last completed degree. A statistically significant difference was found between the groups regarding years of experience. According to the analysis, instructors having 6-10 years of experience had higher levels of FLTA than participants with 21+ years of experience. In terms of proficiency levels taught, the results displayed no meaningful differences in the FLTA scores. In a similar vein, Rani et al. (2022) conducted a mixed-method study to investigate FLTA and TSE of ESL teachers in Pakistan. The researchers employed questionnaires and semi-structured interviews to collect the data for the study. Twenty participants from four colleges completed the questionnaires, and eight also had interviews with the researchers. Overall, the teachers had a low level of FLTA and a high level of TSE.

While self-perception of English proficiency and concerns related to time management caused a low level of anxiety, fear of negative evaluation and lack of students' interest led to moderate anxiety.

In brief, the findings of the related literature highlight that both prospective and in-service teachers have high levels of TSE and experience low to moderate levels of FLTA. Moreover, a low to moderate level of negative correlation was found between FLTA and TSE. Additionally, studies investigated the constructs in relation to some demographic variables. Accordingly, results approving the findings of the previously reviewed literature were observed. Gender did not create a significant difference in Güngör and Yaylı's (2012) study, whereas female teachers had higher levels of anxiety in Merç (2015) and Eren's (2020) studies. Similarly, teachers with less teaching experience felt more anxious.

All in all, the reviewed studies address teachers' technology integration self-efficacy beliefs as well as English teachers' foreign language teaching anxiety. However, no study was found exploring EFL instructors' TISE in relation to their FLTA.

3. METHOD

This chapter provides detailed information about the research methodology adopted in the current study. The first section depicts the research design. The second section introduces the participants based on the data compiled via the background questionnaire of the study. Next, the data collection tools and procedures are explained. The last section gives detailed information about the data analysis processes employed in the study.

3.1 Research Design

This study mainly aims to determine technology integration self-efficacy beliefs and foreign language teaching anxiety of tertiary level EFL instructors in İstanbul. Furthermore, the study intends to reveal relations between these variables if there is any. Since the research aspires to gain insights into two occurring phenomena without any outside interferences and investigate the degree of relationship between the two variables, a descriptive study with a correlational

survey design was implemented (Plano Clark & Creswell, 2015; Seliger & Shohamy, 1989). From a broader perspective, the descriptive approach is known to provide an opportunity to obtain a picture of “the characteristics of a sample at one point in time” in the way it exists (Mertens, 2014, p. 242). In a descriptive correlational study, the degree of association among naturally occurring variables is measured via statistical procedures, and this degree of association formulated as a number illustrates to what extent the variables are related and the extent to which they can predict one another (Plano Clark & Creswell, 2015). Thus, quantitative data collection procedures were employed in the study to collect data from the sample, and a questionnaire was administered. Quantitative inquiry offers a systematic, focused, and controlled investigation of concepts as it involves exact measurement and it produces reliable and replicable data (Dörnyei, 2007). Therefore, a survey design is preferred in the study to gather a “numeric description of trends, attitudes, or opinions” of the participants regarding their TISE beliefs and FLTA (Creswell, 2009, p. 145).

3.2 Participants

The data were collected from 226 EFL teachers working at tertiary level education at the state and private universities in İstanbul starting from 11.04.2022 till 01.07.2022. Table 1 presents detailed background information about the participants.

Table 1. Background Information about the Participant Teachers

Groups		n	%	Groups		n	%
Gender	Female	166	73.5	Age	20-29	45	19.9
	Male	59	26.1		30-39	95	42.0
	Not prefer to mention	1	0.4		40-49	52	23.0
BA program	English Language Teaching	130	57.5		50+	34	15.0
	Language Related Programs	83	36.7	Last degree completed	Bachelor's degree	84	37.2
					Master's degree	124	54.9

	Other	13	5.8		Doctor of Philosophy	18	8.0
Currently working at a	State University	102	45.1	Institution provides training on technology integration	Yes	116	51.3
	Private University	124	54.9		No	110	48.7
Teaching hours per week	0-12 hours	50	22.1	How beneficial is the training on technology integration?	Not beneficial at all	7	6.0
	13-20 hours	129	57.1		Quite beneficial	52	44.9
	21+ hours	47	20.8		Mostly beneficial	41	35.3
					Very beneficial	16	13.8
Facilities at institution	Personal computer and/or tablet	116	51.3	Facilities in classrooms	Classes with smartboard	62	27.6
	Only common computers/tablets	91	40.3		Classes without smartboard	163	72.4
	No personal or public computers/tablets	19	8.4				
Teaching experience	0-4 years	31	13.7	Current teaching conditions	Face-to-face	50	22.1
	5-9 years	44	19.5		Online	30	13.3
	10-14 years	59	26.1		Hybrid	15	6.6
	15-19 years	28	12.4		Face-to-face and online	117	51.8
	20-24 years	30	13.3		Face-to-face and hybrid	5	2.2
	25+ years	34	15.0		Face-to-face, online and hybrid	9	4.0
Variety of levels instructors teach	1 level	75	33.2	System adopted at work place	Modular system	70	31.0
	2 different levels	60	26.5		Yearly program	89	39.4
	3 different levels	47	20.8		Term-based syllabus	67	29.6
	4+ different levels	44	19.5				

As can be seen in Table 1, 73.5% of the participants were female (n= 166), whereas 26.1 % of them were male (n= 59), and one of the participants (0.4%) chose the option “I prefer not to mention” for the gender question. The ages of the participants ranged from 23 to 75, and the mean age of this specific group was 38.6. Different age ranges can be seen in Table 1 as well. Participants between 20- 29 years old constituted 19.9% of the whole group, while participants between 30-39 years old comprised the highest proportion (42%). In addition, 52 participants (23%) were 40-49 years old, and 34 participants (15%) were above 50. Regarding their undergraduate backgrounds, 130 of them (57.5) were graduates of the English Language Teaching department, 83 of them (36.7%) had a degree in other language-related departments such as Literature /Linguistics/ Translation and Interpreting, and 13 of them (5.8%) stated that they graduated from other departments (International Relations, Industrial Engineering, Museum Education, Medical Science, History, Law and Modern Foreign Languages, Commerce, Sociology, Business Studies, Gender and Women Studies, Tourism Management, Modern Foreign Languages). As for their academic level, 84 (37.2%) had a bachelor’s degree, 124 (54.9%) had a master’s degree, and 18 (8%) held a Ph.D.

The participants showed variety in terms of their working conditions. One hundred two of the participants (45.1%) were employed at state universities, and 124 of them (54.9%) worked at private universities. Fifty of the teachers (22.1%) taught 0-12 hours per week, while 129 participants (57.1%) taught 13-20 hours. Forty-seven of the teachers (20.8%) taught 21+ hours on a weekly basis. When the participants were asked whether their current institution provided training on technology integration, 116 of them (51.3%) replied ‘Yes’ and 110 of them (48.7%) said ‘No’. Among the teachers who got training on technology integration, 7 of them (6.0%) did not find it beneficial whereas 52 of them (44.9%) thought it was ‘quite beneficial’. Forty-one of the participants (35.3%) evaluated the training as ‘mostly beneficial’ and 16 (13.8%) of them found it ‘very beneficial’. As for the facilities at their workplaces, 116 of them (51.3%) had a personal computer/tablet which was provided by their institution. While 91 of the participant teachers (40.3%) had access to only common computers/tablets in the teachers’ room or computer lab, 19 of them (8.4%) had no access to any computers/tablets at their workplaces. In addition, 62 teachers

(27.6%) stated that classrooms had smartboards, and 163 of them (72.4%) did not have smartboards in their classrooms. One of the participants did not answer this question as he/she only delivered online classes.

As Table 1 presents, the participants also differed in terms of their teaching experience. Thirty-one participants (13.7%) had an experience of 0-4 years, and 44 (19.5%) had 5-9 years of experience. Fifty-nine participants (26.1%) had been teaching English for 10-14 years, whereas 28 (12.4%) had been teaching for 15-19 years. Thirty of them (13.3%) had an experience of 20-24 years, and 34 of them (15.0%) had 25+ years of teaching experience. Due to the COVID-19 pandemic, teachers have been performing their jobs under different circumstances. Fifty participants (22.1%) taught face-to-face, while 30 teachers (13.3%) conducted online lessons. Fifteen of the participant teachers (6.6%) had been teaching hybrid lessons in which some students and the teacher were in the classroom while others joined the lesson online. 117 of the participants comprising the highest proportion (51.8%) taught both face-to-face and online lessons. Five teachers (2.2%) taught both face-to-face and hybrid lessons, whereas 9 of them taught face-to-face, online, and hybrid lessons. The schools the participants worked at adopted different systems as well. Seventy participants (31.0%) worked according to a modular system. Within a modular system, teachers may teach different classes and levels throughout the year as students' classes change as a result of module exams. Eighty-nine participants (39.4%) taught according to a yearly program, and 67 (29.6%) followed a term-based syllabus. Lastly, Table 1 gives information about how many different levels participants taught. 75 of them (33.2%) stated that they taught one level only, while 60 participants (26.5%) taught two different levels. Forty-seven of them (20.8%) stated that they taught three different levels, and 44 (19.5%) participants expressed teaching 4+ different levels.

3.3 Data Collection Tools

To gather data a survey consisting of three sections was utilized. The demographic information about the participants was collected via a background questionnaire. Information regarding participants' technology integration self-efficacy beliefs and foreign language anxiety were gathered via Technology

Integration Self-Efficacy Scale (TISES) and Foreign Language Teaching Anxiety Scale (FLTAS). The consent for the application of the TISES (See Appendix A) and the FLTAS (See Appendix B) was taken from the researchers. Each data collection tool is described briefly below.

3.3.1 Background Questionnaire

The researcher prepared a questionnaire form (See Appendix C) to gather data on demographic factors such as teaching experience, gender, age, undergraduate programs, and educational status. In addition, after reviewing relevant literature, possible variables which may affect TISE and their FLTA were decided. At this point, three instructors and two professors revised the questionnaire, and the researcher finalized it. As a result, participants were also asked questions about their jobs and workplaces such as institution type, current teaching conditions (e.g., face-to-face, online, hybrid), teaching hours per week, proficiency levels participants teach, the adopted system at their institutions (e.g., modular, term-based, yearly program), whether their institution provides any training on technology integration, if yes how beneficial /effective they find these training and technological facilities at their institution and in language classrooms. The participants replied to 14 questions in total.

3.3.2 Technology Integration Self-Efficacy Scale (TISES)

The TISES was employed to determine teachers' self-efficacy for technology integration. TISES was originally developed by Wang et al. (2004) to measure the TISE beliefs of 280 pre-service teachers. It is a 5-point Likert scale with 21 items, and it consists of two factors which are: 1) computer technology capabilities and strategies (*16 items*), 2) external influences of computer technology uses (*5 items*). The participants are asked to rate statements pertaining to their self-efficacy on the incorporation of technologies on a scale ranging from one to five (*1- strongly disagree, 2- disagree, 3- neither agree nor disagree, 4- agree, 5- strongly agree*). Cronbach alpha coefficient was calculated as .94 (for pre-survey) and .96 (for post-survey). This value for Factor 1 is .94 (pre-survey), .96 (post-survey) and .75 (for pre-survey) for Factor 2. There is no post-survey value for factor 2 in the original study. In the current study, Cronbach alpha coefficient was calculated as .95. This

value for factor 1 is .95 and .78 for factor 2. To adapt today's technological circumstances and developments, the word "computer" in items '1, 2, 6, 7, and 18' was replaced with the phrase "technological tools" and with the word "technology" in item '5'.

3.3.3 Foreign Language Teaching Anxiety Scale (FLTAS)

Originally developed by İpek (2006) in Turkish and translated into English by Eren (2020), Foreign Language Teaching Anxiety Scale was utilized to measure participants' anxiety levels while teaching English. The FLTAS is a 5-point Likert scale, and it consists of 26 items and five factors: 1) anxiety in teaching a particular language skill (*7 items*), 2) worry about target language performance (*8 items*), 3) making mistakes (*6 items*), 4) being compared to fellow teachers (*2 items*), and 5) using the native language (*3 items*). Participants are required to choose the options that reflect their feelings the best. The items are assessed on a scale ranging from 1 to 5 (*1- never, 2- rarely, 3- sometimes, 4- often, 5- always*). The Cronbach Alpha value of the scale found by Eren (2020) is .92. The values for the factors of the scale were .88, .81, .82, .81, and .75 respectively. On the other hand, Cronbach alpha coefficient was calculated as .93 in the current study. The values for the five factors of the scale were .83, .87., .89., .84., and .69 respectively.

3.4 Data Collection Procedure

The ethics committee approval (See Appendix D) was obtained from Istanbul Medeniyet University Faculty of Educational Sciences Ethical Committee to start the data collection process. The background questionnaire, the TISES, and the FLTAS were transferred to Google Forms upon getting the necessary permission. To inform the participants about the content of the study and to get their consent, a brief introductory paragraph and a check box were added to the online survey. In addition, it was also ensured that the participants' identities would never be disclosed and their answers will not be shared. After the online form was finalized, the link for the online survey was shared with EFL teachers working at the tertiary level in İstanbul province via emails and WhatsApp messages. In addition, the researcher applied to universities' schools of foreign languages with the ethics committee report and asked school management to share the survey with their employees. The participant

teachers were also encouraged to share the survey link with their colleagues. The link was active between 11.04.2022 and 01.07.2022, and the data of the study were collected approximately in three months.

3.5 Data Analysis

IBM SPSS Statistics 21.0 software was used to conduct the data analysis. First, the quantitative data compiled through the survey were coded and transferred to the software. Next, the data were tested for normality and homogeneity to determine appropriate analysis techniques which are parametric and non-parametric tests. As normal data distribution is a prerequisite to running parametric tests (Mackey & Gass, 2005; Martin & Bridgmon, 2012), Kolmogorov-Smirnov Test was conducted first. Table 2 presents the results of the normality test.

Table 2. The results of Kolmogorov-Smirnov Test for TISES and FLTAS

Values		TISES	TISES 1	TISES 2	FLTAS	FLTAS 1	FLTAS 2	FLTAS 3	FLTAS 4	FLTAS 5
<i>N</i>		226	226	226	226	226	226	226	226	226
<i>Normal Parameters</i>	$\bar{X}$	3.9418	3.9582	3.8894	1.7075	1.6121	1.4491	1.8245	1.8097	2.3333
	<i>sd</i>	.59419	.62857	.58997	.53232	.57518	.51764	.76055	1.00403	.84795
<i>Kolmogorov-Smirnov Z</i>		.811	1.150	1.410	1.933	2.159	2.898	2.167	3.296	2.129
<i>P</i>		.52*	.14*	.03	.00	.00	.00	.00	.00	.00

* $p > .05$

As can be seen in Table 2, the data show normal distribution for the TISES ($p = .52$) and the first factor of TISES ($p = .14$). Besides the normality test, the data were to be tested for their homogeneity as it is another requirement to apply parametric tests (Martin & Bridgmon, 2012; Pallant, 2011). Therefore, the homogeneity of the data regarding TISES and TISES Factor 1 was tested for each of the variables via one-way ANOVA and the results were considered significant at the level of $p > .05$. Regarding TISES, the requirement for a homogeneous distribution

was met for gender ($p=.43$), current teaching conditions ($p=.50$), variety of levels instructors teach ($p=.38$), BA program ($p=.46$), and last degree completed ($p=.66$). On the other hand, test results proved that the data did not distribute homogeneously for the following variables: age ($p=.00$), institution type ($p=.00$), teaching experience ($p=.03$), teaching hours per week ($p=.00$), adopted system at their workplace ($p=.00$), whether their current institution provides training on technology integration ($p=.00$), if yes how beneficial they find the training ($p=.01$), facilities at their institution ($p=.01$), facilities in classrooms ($p=.02$). When the results concerning TISES Factor 1 were investigated, it was realized that homogeneity was met for gender ($p=.38$), current teaching conditions ($p=.53$), variety of levels instructors teach ($p=.29$), BA program ($p=.51$), and last degree completed ($p=.71$). However, test results proved that the data did not distribute homogeneously for the following variables: age ($p=.00$), institution type ($p=.00$), teaching experience ($p=.00$), teaching hours per week ($p=.00$), adopted system at their workplace ($p=.00$), whether their current institution provides training on technology integration ($p=.00$), if yes how beneficial they find the training ($p=.01$), facilities at their institution ($p=.00$), facilities in classrooms ($p=.04$). As a result, parametric testing was conducted for gender, current teaching conditions, variety of levels instructors teach, BA program, and last degree completed whereas non-parametric tests were employed for the other demographic variables to investigate their relation to TISES and TISES Factor 1. As the data did not show normal distribution for TISES Factor 2, FLTAS, and its five factors (see Table 2), non-parametric testing techniques were utilized for them.

Second, minimum and maximum values, means, and standard deviations were computed in order to determine EFL instructors' TISE beliefs and FLTA levels. Next, the Spearman Correlation test was conducted in order to evaluate the relationship between participants' TISE and FLTA. Since the data for FLTAS did not distribute normally and homogeneously, a non-parametric test, the Spearman Correlation test was utilized.

Later, to investigate whether participants' technology integration self-efficacy beliefs and foreign language teaching anxiety differ by age, gender, institution type, teaching experience, current teaching conditions, teaching hours per week, variety of

levels instructors teach, adopted system at their current institution, graduate programs, last degree completed, whether their current institution provides training on technology integration, how beneficial they find these training, facilities of their institution and facilities of language classrooms, several tests were conducted. Since the data showed normal and homogeneous distribution, the Independent Samples t-test was exploited to investigate whether the participants' technology integration self-efficacy beliefs (TISES Overall) and computer technology capabilities and strategies (TISES Factor 1) varied in their gender. In addition, the one-way ANOVA test was implemented so as to determine whether these constructs varied in terms of current teaching conditions, variety of levels instructors teach, graduate programs, and last degree completed.

On the other hand, for the data which did not prove to be normal and/or homogeneous (TISES Factor 2, FLTAS and its five factors), non-parametric tests were utilized to determine whether participants' perceptions of external influences of computer technology use (TISES Factor 2), foreign language teaching anxiety overall (FLTAS Overall), anxiety regarding teaching a particular language skill (FLTAS Factor 1), target language performance (FLTAS Factor 2), making mistakes (FLTAS Factor 3), being compared to fellow teachers (FLTAS Factor 4), and using native language (FLTAS Factor 5) differed in terms of demographic variables of the study. With this purpose in mind, Mann-Whitney U Test was carried out with the following variables: gender, institution type, whether their current institution provides training on technology integration and facilities of language classrooms. Finally, Kruskal Wallis Test was exploited with the following variables: age, teaching experience, current teaching conditions, teaching hours per week, variety of proficiency levels instructors teach, adopted system at their institution, BA program, last degree completed, how beneficial they find the training their institution provides, and facilities at their institution.

4. RESULTS

This chapter displays the findings of the statistical analysis carried out with the data collected through the TISES, FLTAS, and the background questionnaire in

accordance with the research questions. The results are presented in tables along with their descriptions for each research question.

4.1 Findings for the First Research Question

The first question of the study inquires about EFL instructors' level of technology integration self-efficacy beliefs. To answer the question, descriptive statistics were used, and the means and standard deviations for the TISES were calculated. Table 3 demonstrates the findings. Separate mean values of the items can be seen in Appendix E.

Table 3. Means for the TISES

Scale	$\bar{x}$	sd
<i>TISES Overall</i>	3.94	.59
<i>Factor 1: Computer Technology Capabilities and Strategies</i>	3.95	.62
<i>Factor 2: External Influences of Computer Technology Uses</i>	3.88	.58

As is shown in Table 3, the mean score ($\bar{x}$) for the TISES was 3.94 which demonstrates that participants of the study had a high level of TISE. Furthermore, the mean scores ($\bar{x}$) for *computer technology capabilities and strategies* and *external influences of computer technology uses* which constitute the two factors of TISES were calculated as 3.95 and 3.88 respectively. Regarding the first factor, findings indicate that EFL instructors felt confident the most about their skills to utilize technology in their instruction ($\bar{x} = 4.28$), and they trusted their ability to make use of technological tools appropriately in line with the related content of the lesson ($\bar{x} = 4.26$). Although the participants still had high levels of self-efficacy, EFL instructors felt less confident about mentoring students ($\bar{x} = 3.68$), monitoring their use of technology for project development in class ($\bar{x} = 3.73$), and helping them when they experienced a problem related to technology ($\bar{x} = 3.74$). In other words, teachers believed they could effectively use technology tools within their lessons; however, they did not feel as confident in assisting, observing, and motivating others ($\bar{x} = 3.78$) about their technology use. Although the mean value was not as high as factor

one, participants still had very positive feelings about *external factors* related to technology use ($\bar{x} = 3.88$). They believed that they would be comfortable employing technology in their instruction ($\bar{x} = 4.23$) and more responsive to their learners' needs ($\bar{x} = 4.16$) as time went by. Nevertheless, participant teachers were not that sure they could come up with effective solutions and still teach with technology when confronted with system constraints ($\bar{x} = 3.52$). However, as emphasized above, participants of the study possessed a high level of technology integration self-efficacy beliefs as the mean scores of the descriptive analysis also suggest.

4.2 Findings for the Second Research Question

The second question seeks to find out the level of foreign language teaching anxiety among the participant teachers. To this end, descriptive statistics were used, and the means and standard deviations for the FLTAS were calculated. Table 4 demonstrates the findings for the FLTAS and its factors as well. Detailed mean values of the items can be seen in Appendix F.

Table 4. Means for the FLTAS

Scale	$\bar{x}$	sd
<i>FLTAS Overall</i>	1.70	.53
<i>Factor 1: Anxiety in Teaching a Particular Language Skill</i>	1.61	.57
<i>Factor 2: Worry about Target Language Performance</i>	1.44	.51
<i>Factor 3: Making Mistakes</i>	1.82	.76
<i>Factor 4: Being Compared to Fellow Teachers</i>	1.80	1.00
<i>Factor 5: Using the Native Language</i>	2.33	.84

As Table 4 suggests, the mean score ($\bar{x}$) for the FLTAS was 1.70 which demonstrates that participants had a very low level of FLTA overall. EFL instructors mostly felt comfortable when teaching English and did not worry about their language performance, teaching a specific skill, failures, and being compared to other teachers. When Table 4 is investigated thoroughly, it can be observed that

participant teachers felt anxious about *using the native language* ($\bar{x} = 2.33$) the most. It can be inferred that EFL instructors possessed a moderate level of anxiety regarding using Turkish in class ($\bar{x} = 3.03$), and they regretted having used Turkish during the lesson as well ($\bar{x} = 2.12$) when they thought about it afterward. Related to the second highest factor, it is understood that teachers had a low level of *anxiety about making mistakes* ($\bar{x} = 1.82$). They were afraid of making grammar ($\bar{x} = 2.17$) and spelling ($\bar{x} = 2.08$) mistakes in class. However, they had a lower level of anxiety regarding being criticized by the students ($\bar{x} = 1.49$). *Being compared to fellow teachers* ($\bar{x} = 1.80$) is another factor constituting the FLTAS. Teachers may have felt uneasy when their way of instruction and knowledge of English was compared to other teachers ($\bar{x} = 1.82$). When it comes to *teaching a particular skill*, teachers had a low level of anxiety ($\bar{x} = 1.61$). However, participant teachers may have experienced little anxiety when teaching a skill in which they did not feel proficient enough ($\bar{x} = 1.93$) such as speaking ($\bar{x} = 1.70$), listening ($\bar{x} = 1.64$), grammar (1.58), writing ($\bar{x} = 1.56$), and reading ($\bar{x} = 1.36$). *Being worried about the target language performance* had the lowest mean score ($\bar{x} = 1.44$) among other factors. Participant teachers may have experienced a low level of anxiety ($\bar{x} = 1.67$) and uneasiness ($\bar{x} = 1.65$) when they taught students with a high proficiency level. However, EFL instructors suffered from a relatively lower level of anxiety about speaking in English in class ($\bar{x} = 1.19$) and giving instructions in English ($\bar{x} = 1.30$).

4.3 Findings for the Third Research Question

The third question aims to reveal whether there is a statistically significant relationship between EFL instructors' technology integration self-efficacy beliefs and foreign language teaching anxiety. The results of the Spearman Correlation test conducted to affirm any possible correlation between the two concepts are given in Table 5.

Table 5. Results of the Spearman Correlation Test for TISES and FLTAS

	<i>TISES Overall</i>			<i>Computer Technology Capabilities and Strategies</i>		<i>External Influences of Computer Technology Uses</i>	
	n	r	p	r	p	r	p
<i>FLTAS Overall</i>	226	-.26	.00*	-.26	.00*	-.28	.00*
<i>Anxiety in Teaching a Particular Language Skill</i>	226	-.27	.00*	-.25	.00*	-.31	.00*
<i>Worry about Target Language Performance</i>	226	-.24	.00*	-.23	.00*	-.25	.00*
<i>Making Mistakes</i>	226	-.26	.00*	-.27	.00*	-.24	.00*
<i>Being Compared to Fellow Teachers</i>	226	-.16	.01*	-.16	.01*	-.16	.01*
<i>Using the Native Language</i>	226	-.02	.69	-.01	.79	-.06	.30

*p<.05

As can be seen in Table 5, there was a low-level negative correlation between the EFL teachers' technology integration self-efficacy beliefs and foreign language teaching anxiety ($p=.00$, $r= -.26$). This implies that as the teachers' TISE decreased, their FLTA increased. To state differently, when EFL teachers had lower levels of self-efficacy beliefs for technology integration, they experienced more anxiety in teaching English. Except for the fifth factor of FLTAS (*using the native language*), similar results were obtained for the relations between the subdimensions of the scales and the main constructs. Regarding the first factor of FLTAS, the more the teachers had worries over *teaching a particular skill*, the less they felt competent and confident about overcoming difficulties stemming from external factors related to technology use in class ($p=.00$, $r= -.31$). The third factor of the FLTAS showed the highest correlation value with the first factor of TISES. The participants with a lower sense of efficacy for their *computer technology capabilities and strategies* felt more

anxious about *making a mistake* while they teach English ($p=.00$, $r= -.27$). The lowest meaningful correlation ($p=.01$, $r= -.16$) was found for *being compared to fellow teachers* and TISES overall as well as its two factors. The participant teachers may have been more concerned about being compared to other teachers in terms of their teaching methods and English proficiency if they possessed lower levels of TISE beliefs. On the other hand, *using the native language* did not correlate with TISES ($p=.69$) or its factors ($p=.79$, $p=.30$).

4.4 Findings for the Fourth Research Question

The fourth question of the study aims to find out whether EFL teachers' perceived technology integration self-efficacy beliefs significantly differ by *age, gender, institution type, teaching experience, current teaching conditions, teaching hours per week, variety of levels instructors teach, the adopted system at their current institution, graduate programs, last degree completed, whether their current institution provides training on technology integration, how beneficial they find the training, facilities of their institution, and facilities of language classrooms*.

First, the independent samples t-test was conducted to uncover any variations in TISES overall and Factor 1 regarding gender. The results of the analysis are presented in Table 6 below.

Table 6. Results of Independent Samples t-test for TISES Overall and Factor 1 Regarding Gender

Scale	Groups	n	$\bar{x}$	sd	t-test		
					t	df	p
<i>TISES Overall</i>	Female	166	3.91	.597	-1.300	223	.19
	Male	59	4.02	.587			
<i>Computer Technology Capabilities and Strategies</i>	Female	166	3.92	.633	-1.358	223	.17
	Male	59	4.05	.614			

* $p<.05$

Since one of the participants did not prefer to mention his/her gender, 225 participants were included in the analysis. As can be inferred from Table 6, the participant instructors' gender did not create any significant difference in their TISE

($p=.19$) or computer technology capabilities and strategies ($p=.17$). Although there was not a statistically significant difference, it can be suggested that male teachers seemed to have a higher sense of TISE when the mean scores are considered ($\bar{x}_{\text{female}}=3.91$, $\bar{x}_{\text{male}}=4.02$).

Second, the data for the second factor of TISES required non-parametric testing, so the Mann-Whitney U Test was conducted to reveal any difference in Factor 2 regarding gender. The results of this analysis are displayed in Table 7 below.

Table 7. Results of Mann-Whitney U Test for Factor 2 Regarding Gender

Scale	Variable	Groups	n	Mean Rank	Sum of Ranks	U	p
<i>External Influences of Computer Technology Uses</i>	Gender	Female	166	109.79	18225.50	4364.500	.21
		Male	59	122.03	7199.50		

* $p<.05$

As can be seen in Table 7, EFL teachers' confidence in overcoming and managing external influences of technology integration did not differ significantly in terms of gender ($p=.21$). Still, male participants ($\bar{x}=122.03$) seemed to have higher levels of self-efficacy than female instructors ($\bar{x}=109.79$).

Third, the Mann-Whitney U Test was conducted to reveal any variations in TISES overall, Factor 1 and Factor 2 in terms of institution type, facilities of language classrooms, and whether participant teachers' current institution provides training on technology integration. The results are shown in Table 8.

Table 8. Results of Mann-Whitney U Test for TISES Overall, Factor 1 and Factor 2 Regarding Institution Type, Facilities of Language Classrooms, and Training on Technology Integration

Scale	Variable	Groups	n	Mean Rank	Sum of Ranks	U	p
<i>TISES Overall</i>	Institution Type	State	102	94.75	9665.00	4412.000	.00*
		Private	124	128.92	15986.00		
	Facilities of Language	With	62	126.36	7834.50	4224.500	.05

<i>Computer Technology Capabilities and Strategies</i>	Classrooms Smartboard						
		Without Smartboard	163	107.92	17590.50		
	Training on Technology Integration	Yes	116	132.09	15322.00	4224.000	.00*
		No	110	93.90	10329.00		
	Institution Type	State	102	95.36	9726.50	4473.000	.00*
		Private	124	128.42	15924.50		
	Facilities of Language Classrooms	With Smartboard	62	125.45	7778.000	4281.000	.07
		Without Smartboard	163	108.26	17647.00		
	Training on Technology Integration	Yes	116	131.94	15304.50	4241.500	.00*
		No	110	94.06	10346.50		
<i>External Influences of Computer Technology Uses</i>	Institution Type	State	102	98.78	10076.00	4823.000	.00*
		Private	124	125.60	15575.00		
	Facilities of Language Classrooms	With Smartboard	62	129.94	8056.50	4002.500	.01*
		Without Smartboard	163	106.56	17368.50		
	Training on Technology Integration	Yes	116	127.56	14797.50	4748.500	.00*
		No	110	98.67	10853.50		

*p<.05

As can be seen in Table 8, the EFL teachers' TISE differed significantly in terms of their workplace for the overall scale ($p=.00$) as well as for Factor 1 ($p=.00$) and Factor 2 ($p=.00$). To elaborate, EFL instructors employed at private universities had higher levels of technology integration self-efficacy beliefs ($\bar{x}=128.92$). They felt more confident about their abilities and strategies to employ technology in their instruction ($\bar{x}=128.42$) and more secure about handling external difficulties regarding technology integration such as a budget cut ($\bar{x}=125.60$).

To learn about classroom facilities, the participant teachers were asked if they had access to smartboards in their classrooms. While 62 of them had access to smartboards, 163 stated that they did not have smartboards in their classrooms. One of the participants did not answer that question as he/she delivered online classes. As Table 8 suggests, having a smart board in use did not create a significant difference in their TISE ($p=.05$) and their perceived computer technology capabilities and strategies ($p=.07$). However, there was a statistically significant difference in participant teachers' beliefs when the second factor was considered ($p=.01$). Teachers who had access to a smartboard in class seemed to have a higher sense of self-efficacy in terms of external influences in relation to technology implementation such as curricular goals, system constraints, skeptical colleagues, and course of time ($\bar{x}=129.94$). Even though there was not a statistically significant difference in terms of TISES Overall ($\bar{x}=126.36$) and Factor 1 ($\bar{x}=125.45$), teachers using smartboards had higher TISE and trusted their abilities and strategies more.

When the participant teachers were asked whether their current workplace provided any training on technology integration, 116 teachers replied, 'Yes' while 110 of them said 'No'. As Table 8 displays, EFL teachers replying 'Yes' had higher levels of TISE ($\bar{x}=132.09$, $p=.00$). When Factor 1 and Factor 2 were investigated, the analysis presented similar results. Therefore, EFL teachers' technology integration self-efficacy beliefs significantly differed for Factor 1 ($\bar{x}=131.94$, $p=.00$) and Factor 2 ($\bar{x}=127.56$, $p=.00$) according to whether their institution offered training on technology integration into their lessons in favor of the ones who replied "Yes".

Fourth, in the background questionnaire, the participant teachers were asked to evaluate their training by choosing one option: not beneficial/effective at all, quite beneficial/effective, mostly beneficial/effective, very beneficial/effective. The results of the Kruskal Wallis test which was used to uncover any variations in TISES Overall, Factor 1 and Factor 2 by teachers' perception of the training can be seen in Table 9.

Table 9. Results of Kruskal Wallis Test for TISES Overall, Factor 1 and Factor 2 Regarding Effectiveness of Training on Technology Integration

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>TISES Overall</i>	<i>Effectiveness of Training</i>	Not beneficial/effective at all	7	31.21	11.119	3	.01*
		Quite beneficial/effective	52	63.74			
		Mostly beneficial/effective	41	50.77			
		Very beneficial/effective	16	73.22			
<i>Computer Technology Capabilities and Strategies</i>	<i>Effectiveness of Training</i>	Not beneficial/effective at all	7	32.71	9.899	3	.01*
		Quite beneficial/effective	52	62.96			
		Mostly beneficial/effective	41	51.50			
		Very beneficial/effective	16	73.22			
<i>External Influences of Computer Technology Uses</i>	<i>Effectiveness of Training</i>	Not beneficial/effective at all	7	38.14	10.837	3	.01*
		Quite beneficial/effective	52	63.63			
		Mostly beneficial/effective	41	49.15			
		Very beneficial/effective	16	74.69			

* $p < .05$

As can be understood from Table 9, the EFL teachers' TISE differed significantly in terms of their perceptions of the training on technology integration provided by their workplace ($p=.01$). Additionally, the analysis conducted with the factors of TISES presented similar results ($p=.01$, $p=.01$). Below are given the posthoc test results to understand which groups create these significant differences.

Table 10. Results of LSD for TISES Overall, Factor 1, and Factor 2 Regarding Effectiveness of Training on Technology

		<i>TISES Overall</i>			<i>Factor 1</i>			<i>Factor 2</i>		
Effectiveness of Training (I)	Effectiveness of Training (J)	$\bar{x}$ (I-J)	Std. Error	p	$\bar{x}$ (I-J)	Std. Error	p	$\bar{x}$ (I-J)	Std. Error	p
<i>Not beneficial at all</i>	Quite beneficial	-.401	.192	.04*	-.416	.200	.04*	-.353	.199	.07
	Mostly beneficial	-.189	.195	.33	-.215	.203	.292	-.105	.202	.60
	Very beneficial	-.563	.216	.01*	-.581	.225	.01*	-.507	.224	.02*
<i>Quite beneficial</i>	Not beneficial	.401	.192	.04*	.416	.200	.04*	.353	.199	.07
	Mostly beneficial	.211	.100	.03*	.200	.104	.05	.247	.103	.01*
	Very beneficial	-.162	.136	.23	-.165	.142	.24	-.153	.141	.28
<i>Mostly beneficial</i>	Not beneficial	.189	.195	.33	.215	.203	.29	.105	.202	.60
	Quite beneficial	-.211	.100	.03*	-.200	.104	.05	-.247	.103	.01*

	Very beneficial	-.374	.141	.00*	-.365	.146	.01*	-.401	.146	.00*
	Not beneficial	.563	.216	.01*	.581	.225	.01*	.507	.224	.02*
<i>Very beneficial</i>	Quite beneficial	.162	.136	.23	.165	.142	.24	.153	.141	.28
	Mostly beneficial	.374	.141	.00*	.365	.146	.01*	.401	.146	.00*

*p<.05

Based on the LSD results, the significant difference in TISES Overall in relation to EFL instructors' opinions of the effectiveness of the technology integration training stemmed from different combinations of the answers. First, it is possible to highlight the difference between the participants who answered the question by saying 'not beneficial at all' ($\bar{x}$ =3.77), and the ones who found the training 'very beneficial' ($\bar{x}$ =4.33), and 'quite beneficial' ($\bar{x}$ =4.17). Second, there was a meaningful difference between the participants who thought the training is 'mostly beneficial' ($\bar{x}$ =3.96) and the ones who believed it was 'quite beneficial' ($\bar{x}$ =4.17), and 'not beneficial' ($\bar{x}$ =3.77). In addition, when the participants who answered 'very beneficial' ($\bar{x}$ =4.33) were compared with instructors who said 'not beneficial' ($\bar{x}$ =3.77) and 'mostly beneficial' ($\bar{x}$ =3.96), a meaningful difference was realized as well. In summary, the teachers who thought that the training was not beneficial had the lowest level of TISE ($\bar{x}$ =3.77), while participant teachers believing that the training was very effective ($\bar{x}$ =4.33) had the highest levels and they were followed by the group choosing the option 'quite beneficial' ($\bar{x}$ =4.17).

Similar results were observed for the LSD test conducted with TISES Factor 1. There was a meaningful difference between participants thinking that the training was 'not beneficial at all' ($\bar{x}$ =3.78) and instructors believing it was 'quite beneficial' ($\bar{x}$ =4.20) and 'very beneficial' ($\bar{x}$ =4.36). Additionally, participants choosing the option 'mostly beneficial' ($\bar{x}$ =4.00) and 'very beneficial' ($\bar{x}$ =4.36) created a significant difference. To elaborate, the participant teachers who believed that the training was 'not beneficial at all' ($\bar{x}$ =3.78) believed in their technology integration capabilities and strategies the least whereas teachers thinking the training was 'very beneficial' had the highest self-efficacy ($\bar{x}$ =4.36).

When it comes to TISES Factor 2, a significant difference was realized between participants answering the questions by saying 'not beneficial' ($\bar{x}$ =3.74) and

‘very beneficial’ ($\bar{x}=4.25$). Another meaningful difference was between the participants choosing the option ‘quite beneficial’ ($\bar{x}=4.09$) and ‘mostly beneficial’ ($\bar{x}=3.84$). Furthermore, there was a significant difference between the mean scores of participants thinking that the training was ‘mostly beneficial’ ($\bar{x}=3.84$) and ‘very beneficial’ ($\bar{x}=4.25$). To summarize, similar to TISES Overall and Factor 1, EFL teachers believing that the training on technology integration was ‘not beneficial’ ($\bar{x}=3.74$) had the lowest level of self-efficacy in terms of external influences in relation to technology integration and they were followed by the teachers thinking it was ‘mostly beneficial’ ($\bar{x}=3.84$). On the other hand, EFL instructors who believed that the training they got was ‘very beneficial’ ($\bar{x}=4.25$) possessed the highest level of self-efficacy regarding external influences of technology integration.

Fifth, one-way ANOVA was implemented to reveal any differences in TISES overall and Factor 1 regarding current teaching conditions. The results of the analysis are displayed in Table 11 below.

Table 11. Results of One-Way ANOVA for TISES Overall and Factor 1 Regarding Current Teaching Conditions

Variables	Groups	n	$\bar{x}$	Sd.	St. E. Mean	F	p
<i>TISES Overall</i>	face-to-face	50	3.96	.59	.084	.869	.50
	online	30	3.94	.65	.119		
	hybrid	15	3.85	.54	.140		
	face-to-face and online	117	3.91	.60	.055		
	face-to-face and hybrid	5	3.88	.30	.136		
	face-to-face, online, and hybrid	9	4.32	.38	.128		
	Total	226	3.94	.59	.039		
<i>Computer Technology Capabilities and Strategies</i>	face-to-face	50	3.97	.63	.089	.819	.53
	online	30	3.95	.67	.123		
	hybrid	15	3.86	.59	.154		
	face-to-face and online	117	3.93	.64	.059		
	face-to-face and hybrid	5	3.87	.29	.131		
	face-to-face, online, and hybrid	9	4.35	.42	.140		
	Total	226	3.95	.62	.041		

* $p<.05$

As can be observed in Table 11, the participants’ technology integration self-efficacy beliefs ($p=.50$) and computer technology capabilities and strategies ($p=.53$)

did not differ significantly in relation to their current teaching conditions. However, when the mean scores were considered, it was observed that the EFL instructors delivering face-to-face, online as well as hybrid lessons had higher self-efficacy ($\bar{x}=4.32$) and felt more confident about their technology capabilities and strategies ($\bar{x}=4.35$).

In addition, with the non-parametric data of Factor 2, Kruskal Wallis Test was conducted to evaluate whether participant teachers' self-efficacy in terms of external influences of technology integration varied significantly by current teaching conditions. The results are displayed in Table 12.

Table 12. Results of Kruskal Wallis Test for Factor 2 Regarding Current Teaching Conditions

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>External Influences of Computer Technology Uses</i>	<i>Current Teaching Conditions</i>	face-to-face	50	117.41	4.807	5	.44
		online	30	116.42			
		hybrid	15	105.37			
		face-to-face and online	117	108.67			
		face-to-face and hybrid	5	119.90			
		face-to-face, online, and hybrid	9	154.83			
Total			226				

* $p < .05$

As Table 12 presents, similar results were obtained. Although there was not a statistically meaningful difference among the groups, the mean values suggest that the participants teaching face-to-face, online, as well as hybrid classes ($\bar{x}=154.83$) had the highest level of self-efficacy to overcome external influences related to technology integration.

Sixth, a one-way ANOVA test was used to uncover any variations in TISES overall, Factor 1 and Factor 2 by variety of levels instructors teach. The results of the analysis are given in Table 13 below.

Table 13. Results of One-Way ANOVA for Variety of Levels Instructors Teach, TISES Overall and Factor 1

Variables	Groups	n	$\bar{x}$	Sd.	St. E.	Mean	F	p
<i>TISES Overall</i>	1 level	75	3.85	.58	.067		1.02	.38
	2 different levels	60	3.96	.62	.080			

<i>Computer Technology Capabilities and Strategies</i>	3 different levels	47	4.03	.60	.088	1.23	.29
	4+ different levels	44	3.96	.54	.082		
	Total	226	3.94	.59	.039		
	1 level	75	3.86	.64	.074		
	2 different levels	60	3.97	.65	.084		
	3 different levels	47	4.08	.61	.089		
	4+ different levels	44	3.96	.58	.087		
	Total	226	3.95	.62	.041		

*p<.05

As Table 13 suggests, there was no statistically significant difference in EFL instructors' TISE beliefs ($p=.38$) and their perceived computer technology capabilities and strategies ($p=.29$) in terms of the number of proficiency levels they taught. The highest value was observed for participants who had been teaching at 3 different levels for both TISES Overall ($\bar{x}=4.03$) and Factor 1 ($\bar{x}=4.08$) while the lowest mean values were found for participants teaching 1 level ($\bar{x}_{\text{TISES Overall}}=3.85$, $\bar{x}_{\text{Factor 1}}=3.86$). In addition, the Kruskal Wallis test was implemented to reveal variations in Factor 2 regarding the variety of levels instructors taught. The results are shown in Table 14.

Table 14. Results of Kruskal Wallis Test for Factor 2 Regarding Variety of Levels Instructors Teach

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>External Influences of Computer Technology Uses</i>	<i>Variety of Levels</i>	1 level	75	108.31	.948	3	.81
		2 different levels	60	116.48			
		3 different levels	47	112.65			
		4+ different levels	44	119.18			

*p<.05

Similar to TISES Overall and Factor 1, there was not a statistically significant difference in Factor 2 regarding the variety of levels instructors taught. While the lowest mean value was calculated for participants teaching one level ($\bar{x}=108.31$), the highest value was found for instructors who had been teaching four and more different proficiency levels ($\bar{x}=119.18$).

Seventh, the Kruskal Wallis test was used to uncover any variations in TISES overall, Factor 1 and Factor 2 by teaching hours per week. The results of the analysis are given in Table 15 below.

Table 15. Results of Kruskal Wallis Test for TISES Overall, Factor 1, and Factor 2 Regarding Teaching Hours per Week

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>TISES Overall</i>	<i>Teaching Hours per Week</i>	0-12 hours	50	130.54	12.777	2	.00*
		13-20 hours	129	100.03			
		21+ hours	47	132.33			
<i>Computer Technology Capabilities and Strategies</i>	<i>Teaching Hours per Week</i>	0-12 hours	50	132.02	12.494	2	.00*
		13-20 hours	129	100.19			
		21+ hours	47	130.33			
<i>External Influences of Computer Technology Uses</i>	<i>Teaching Hours per Week</i>	0-12 hours	50	125.86	10.059	2	.00*
		13-20 hours	129	101.76			
		21+ hours	47	132.57			

*p<.05

As Table 15 suggests, the EFL teachers' TISE differed significantly in terms of their weekly workload ($p=.00$). Additionally, the analysis conducted with the factors of TISES presents similar results for Factor 1 ($p=.00$) and Factor 2 ($p=.00$). Below are given the posthoc test results to understand which groups created this significant difference.

Table 16. Results of Tukey HSD for TISES Overall, Factor 1, and Factor 2 Regarding Teaching Hours per Week

		<i>TISES Overall</i>			<i>Factor 1</i>			<i>Factor 2</i>		
Teaching Hours (I)	Teaching Hours (J)	$\bar{x}$ (I-J)	Std. Error	P	$\bar{x}$ (I-J)	Std. Error	P	$\bar{x}$ (I-J)	Std. Error	P
<i>0-12 hours</i>	13-20	.279	.096	.01*	.294	.102	.01*	.232	.096	.04*
	21+	-.016	.117	.98	-.006	.124	.99	-.047	.117	.91
<i>13-20 hours</i>	0-12	-.279	.096	.01*	-.294	.102	.01*	-.232	.096	.04*
	21+	-.296	.098	.00*	-.301	.104	.01*	-.279	.098	.01*
<i>21+ hours</i>	0-12	.016	.117	.98	.006	.124	.99	.047	.117	.91
	13-20	.296	.098	.00*	.301	.104	.01*	.279	.098	.01*

*p<.05

As can be understood from Table 16, the significant difference in TISES Overall in relation to participant teachers' weekly teaching hours stemmed from the participants who taught between 0-12 hours and 13-20 hours ($p=.01$) as well as ones teaching 13-20 hours and 21+ hours ($p=.00$). To elaborate, teachers who taught 13-20 hours ($\bar{x}=3.81$) had a lower level of self-efficacy for technology integration than the ones who had been teaching 0-12 hours ($\bar{x}=4.09$) and 21+ hours ($\bar{x}=4.11$).

Similar results were observed for Tukey HSD conducted with TISES Factor 1. Accordingly, there was a significant difference between the participants who worked 13-20 hours and the ones teaching 0-12 hours ($p=.01$) and 21+ hours ($p=.01$). In other words, the participants who taught 13-20 hours ($\bar{x}=3.83$) felt less confident about their technology integration capabilities and strategies than the ones who worked 0-12 hours ($\bar{x}=4.12$) and 21+ hours ($\bar{x}=4.13$).

There was also a significant difference in TISES Factor 2 in relation to participant teachers' workload. This resulted from the difference between the participants who taught 13-20 hours and the ones teaching 0-12 hours ($p=.04$) as well as 21+ hours ($p=.01$). Similar to TISES Overall and Factor 1, EFL teachers who taught 21+ hours had the highest self-efficacy in terms of external influences of technology integration ($\bar{x}=4.05$), and they were followed by EFL instructors who taught 0-12 hours ($\bar{x}=4.01$). On the other hand, participants who taught 13-20 hours ($\bar{x}=3.77$) did not feel as secure as other teachers in handling external difficulties regarding technology integration.

Eighth, the Kruskal Wallis test was used to uncover any variations in TISES overall, Factor 1 and Factor 2 by the adopted system at school. The results of the analysis are given in Table 17 below.

Table 17. Results of Kruskal Wallis Test for TISES Overall, Factor 1, and Factor 2 Regarding Adopted System at Workplace

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>TISES Overall</i>	<i>Adopted System</i>	Modular System	70	140.82	19.689	2	.00*
		Yearly Program	89	94.88			
		Term-based Syllabus	67	109.69			
<i>Computer Technology</i>	<i>Adopted System</i>	Modular System	70	139.57	18.304	2	.00*
		Yearly Program	89	95.15			

<i>Capabilities and Strategies</i>		Term-based Syllabus	67	110.64			
<i>External Influences of Computer Technology Uses</i>	<i>Adopted System</i>	Modular System	70	139.03			
		Yearly Program	89	99.48	15.958	2	.00*
		Term-based Syllabus	67	105.46			

*p<.05

Table 17 indicates that there was a meaningful difference in participant teachers' technology integration self-efficacy beliefs in the overall scale ($p=.00$) as well as for Factor 1 ($p=.00$) and Factor 2 ($p=.00$) in relation to the adopted system at their workplace. While some institutions follow a yearly program and EFL instructors teach the same classes throughout the year in Turkey, some others may teach according to a term-based syllabus. On the other hand, some institutions adopt a modular system and the classes instructors teach may change in line with module exams throughout the semester. Tukey HSD was conducted to investigate which group led to this significant difference, and the results are given in Table 18.

Table 18. Results of Tukey HSD for TISES Overall, Factor 1, and Factor 2 Regarding Adopted System at Workplace

		<i>TISES Overall</i>			<i>Factor 1</i>			<i>Factor 2</i>		
Adopted System (I)	Adopted System (J)	$\bar{x}$ (I-J)	Std. Error	P	$\bar{x}$ (I-J)	Std. Error	P	$\bar{x}$ (I J)	Std. Error	P
<i>Modular</i>	Yearly	.397	.091	.00*	.409	.097	.00*	.358	.091	.00*
	Term-based	.288	.097	.01*	.281	.103	.02*	.310	.097	.00*
<i>Yearly</i>	Modular	.397	.091	.00*	-.409	.097	.00*	-.358	.091	.00*
	Term-based	-.109	.092	.46	-.128	.098	.39	-.047	.092	.86
<i>Term-based</i>	Modular S	-.288	.097	.01*	-.281	.103	.02*	-.310	.097	.00*
	Yearly	.109	.092	.46	.128	.098	.39	.047	.092	.86

*p<.05

In accordance with Tukey HSD results, the significant variation in TISES Overall regarding the adopted system stemmed from the difference between participants who worked at institutions following a modular system and the ones following a yearly plan ($p=.00$) as well as a term-based system ($p=.01$). To clarify, participants teaching in line with a modular system had a higher level of self-efficacy

($\bar{x}$ =4.18) than the EFL instructors following a yearly program ($\bar{x}$ =3.78) and a term-based syllabus ($\bar{x}$ =3.89).

In line with the results of TISES Overall, the meaningful difference in Factor 1 in terms of the adopted system resulted from participants following a modular system and the ones teaching according to a yearly program (p =.00) as well as a term-based syllabus (p =.02). EFL instructors following a modular system felt more confident about their technology integration capabilities and strategies ($\bar{x}$ =4.20) than the ones teaching according to a term-based syllabus ($\bar{x}$ =3.92) and a yearly program ($\bar{x}$ =3.79).

Similar to TISES Overall and Factor 1, the significant difference in TISES Factor 2 in relation to the adopted system stemmed from the participants following a modular system and the ones teaching according to a yearly program (p =.00) as well as a term-based syllabus (p =.00). Participants who followed a yearly program ($\bar{x}$ =3.76) felt less confident about their capabilities to overcome difficulties related to technology integration stemming from external factors when compared to teachers who taught according to a term-based syllabus ($\bar{x}$ =3.81) and followed a modular system ($\bar{x}$ =4.12). Consequently, when TISES Overall values and its subdimensions are considered, it is possible to conclude that teachers engaged in a modular system had higher levels of TISE.

Ninth, the Kruskal Wallis test was implemented to uncover any variations in TISES Overall, Factor 1, and Factor 2 regarding the participant teachers' age. The results of the analysis are given in Table 19 below.

Table 19. Results of Kruskal Wallis Test for TISES Overall, Factor 1 and Factor 2 Regarding Age

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>TISES Overall</i>	<i>Age</i>	20-29 years old	45	133.68	11.769	3	.00*
		30-39 years old	95	117.72			
		40-49 years old	52	107.15			
		50+ years old	34	87.72			
<i>Computer Technology Capabilities and Strategies</i>	<i>Age</i>	20-29 years old	45	131.49	11.200	3	.01*
		30-39 years old	95	118.26			
		40-49 years old	52	108.60			

<i>External Influences of Computer Technology Uses</i>	<i>Age</i>	50+ years old	34	83.88	9.800	3	.02*
		20-29 years old	45	133.40			
		30-39 years old	95	115.86			
		40-49 years old	52	108.51			
		50+ years old	34	88.19			

*p<.05

As can be understood from Table 19, the EFL teachers' TISE beliefs differed significantly in terms of their age ($p=.00$). Additionally, the analyses conducted with the factors of TISES present similar results for Factor 1 ($p=.01$) and Factor 2 ($p=.02$). Below are given the posthoc test results to understand which groups created the significant differences.

Table 20. Results of Tukey HSD for TISES Overall, Factor 1, and Factor 2 Regarding Age

<i>TISES Overall</i>					<i>Factor 1</i>			<i>Factor 2</i>		
Age (I)	Age (J)	$\bar{x}$ (I-J)	Std. Error	P	$\bar{x}$ (I-J)	Std. Error	P	$\bar{x}$ (I-J)	Std. Error	P
20-29	30-39	.124	.104	.63	.112	.110	.73	.162	.104	.40
	40-49	.246	.117	.15	.243	.124	.20	.254	.117	.13
	50+	.513	.130	.00*	.522	.138	.00*	.483	.130	.00*
30-39	20-29	-.124	.104	.63	-.112	.110	.73	-.162	.104	.40
	40-49	.121	.099	.61	.131	.105	.60	.091	.099	.79
	50+	.388	.115	.00*	.409	.122	.00*	.320	.114	.02*
40-49	20-29	-.246	.117	.15	-.243	.124	.20	-.254	.117	.13
	30-39	-.121	.099	.61	-.131	.105	.60	-.091	.099	.79
	50+	.267	.127	.15	.278	.134	.16	.228	.126	.27
50+	20-29	-.513	.130	.00*	-.522	.138	.00*	-.483	.130	.00*
	30-39	-.388	.115	.00*	-.409	.122	.00*	-.320	.114	.02*
	40-49	-.267	.127	.15	-.278	.134	.16	-.228	.126	.27

*p<.05

Based on the Tukey HSD results, the significant difference in TISES Overall in relation to participant teachers' age stemmed from the participants who were 50+ years old and the ones who were 20-29 and 30-39 ($p=.00$). To elaborate, teachers who were 20-29 years old ($\bar{x}=4.12$), and 30-39 years old ($\bar{x}=4.00$), had higher levels of TISE than participant teachers who were 50+ years old ($\bar{x}=3.61$). In addition, it was seen that teachers who were between 40-49 also had lower self-efficacy ($\bar{x}=3.88$) when compared to younger age groups, even though this difference was not statistically meaningful.

Similar results were observed for Tukey HSD conducted with TISES Factor 1. Participants who were between 20-29, 30-39, and 50+ years old created a significant difference ($p=.00$). Participants between 20-29 ($\bar{x}=4.14$), and 30-39 ($\bar{x}=4.02$), seemed to feel more confident about implementing technology into their lessons appropriately, and they felt more convinced about their skills and capabilities when compared to EFL teachers who were 50+ years old ($\bar{x}=3.61$).

As can be understood from Table 20, the significant difference in TISES Factor 2 in relation to participant teachers' age stemmed from the participants who were 50+ years old and the ones who were 20-29 ($p=.00$), and 30-39 ($p=.02$). Participants who were 50+ years old felt less confident about their capabilities to overcome difficulties related to technology integration stemming from external factors ($\bar{x}=3.60$) when compared to teachers who were 20–29-years old ($\bar{x}=4.08$) and 30–39-years old ($\bar{x}=3.92$). EFL teachers between 40-49 ($\bar{x}=3.83$) also felt less confident than younger groups; however, this difference was not statistically meaningful. Therefore, when TISES Overall values as well as its subdimensions are considered, it is possible to conclude that younger teachers had higher levels of self-efficacy beliefs about technology integration.

Tenth, the Kruskal Wallis test was conducted to uncover any variations in TISES Overall, Factor 1, and Factor 2 regarding participant EFL instructors' teaching experience. The results of the analysis are given in Table 21 below.

Table 21. Results of Kruskal Wallis Test for TISES Overall, Factor 1, and Factor 2 Regarding Teaching Experience

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>TISES Overall</i>	<i>Teaching Experience</i>	0-4 years	31	133.13	12.005	5	.03*
		5-9 years	44	127.16			
		10-14 years	59	112.16			
		15-19 years	28	102.63			
		20-24 years	30	117.97			
		25+ years	34	85.26			
<i>Computer Technology Capabilities and Strategies</i>	<i>Teaching Experience</i>	0-4 years	31	132.79	11.129	5	.04*
		5-9 years	44	124.27			
		10-14 years	59	113.67			
		15-19 years	28	105.43			

<i>External Influences of Computer Technology Uses</i>	<i>Teaching Experience</i>	20-24 years	30	117.77	13.506	5	.01*
		25+ years	34	84.56			
		0-4 years	31	124.65			
		5-9 years	44	132.39			
		10-14 years	59	110.42			
		15-19 years	28	96.68			
		20-24 years	30	126.27			
		25+ years	34	86.84			

*p<.05

As Table 21 illustrates, EFL teachers' TISE differed significantly in terms of their teaching experience ($p=.03$). Furthermore, the analyses conducted with Factor 1 ($p=.04$) and Factor 2 ($p=.01$) present similar results. Below are given the posthoc test results to understand which groups created the significant difference for each factor.

Table 22. Results of Tukey HSD for TISES Overall, Factor 1, and Factor 2 Regarding Teaching Experience

Teaching Experience (I)	Teaching Experience (J)	<i>TISES Overall</i>			<i>Factor 1</i>			<i>Factor 2</i>		
		$\bar{x}$ (I-J)	Std. Error	P	$\bar{x}$ (I-J)	Std. Error	P	$\bar{x}$ (I-J)	Std. Error	P
0-4 years	5-9	.053	.135	.99	.074	.143	.99	-.011	.135	1.00
	10-14	.172	.127	.75	.173	.135	.79	.170	.127	.76
	15-19	.280	.150	.42	.277	.159	.50	.288	.150	.39
	20-24	.135	.147	.94	.161	.156	.90	.052	.147	.99
	25+	.535	.143	.00*	.569	.151	.00*	.426	.143	.03*
5-9 years	0-4	-.053	.135	.99	-.074	.143	.99	.011	.135	1.00
	10-14	.118	.114	.90	.099	.121	.96	.182	.114	.60
	15-19	.226	.139	.58	.203	.147	.74	.300	.139	.26
	20-24	.081	.136	.99	.087	.144	.99	.063	.136	.99
	25+	.481	.131	.00*	.495	.139	.00*	.438	.131	.01*
10-14 years	0-4	-.172	.127	.75	-.173	.135	.79	-.170	.127	.76
	5-9	-.118	.114	.90	-.099	.121	.96	-.182	.114	.60
	15-19	.107	.132	.96	.104	.140	.97	.117	.132	.94
	20-24	-.037	.129	1.00	-.011	.136	1.00	-.118	.129	.94
	25+	.362	.124	.04*	.396	.131	.03*	.256	.124	.31
15-19 years	0-4	-.280	.150	.42	-.277	.159	.50	-.288	.150	.39
	5-9	-.226	.139	.58	-.203	.147	.74	-.300	.139	.26
	10-14	-.107	.132	.96	-.104	.140	.97	-.117	.132	.94
	20-24	-.144	.151	.93	-.116	.160	.97	-.236	.151	.62
	25+	.255	.147	.51	.291	.155	.42	.138	.147	.93
20-24	0-4	-.135	.147	.94	-.161	.156	.90	-.052	.147	.99

<i>years</i>	5-9	-.081	.136	.99	-.087	.144	.99	-.063	.136	.99
	10-14	.037	.129	1.00	.011	.136	1.00	.118	.129	.94
	15-19	.144	.151	.93	.116	.160	.97	.236	.151	.62
	25+	.400	.144	.06	.407	.152	.08	.374	.144	.10
<i>25+ years</i>	0-4	-.535	.143	.00*	-.569	.151	.00*	-.426	.143	.03*
	5-9	-.481	.131	.00*	-.495	.139	.00*	-.438	.131	.01*
	10-14	-.362	.124	.04*	-.396	.131	.03*	-.256	.124	.31
	15-19	-.255	.147	.51	-.291	.155	.42	-.138	.147	.93
	20-24	-.400	.144	.06	-.407	.152	.08	-.374	.144	.10

* $p < .05$

Based on the Tukey HSD results, the significant difference in TISES Overall in relation to participant teachers' years of teaching experience stemmed from the participants who had been teaching for 25+ years and the ones with experiences for 0-4 years ($p=.00$), 5-9 years ($p=.00$), and 10-14 years ($p=.04$). To clarify, technology integration self-efficacy beliefs of teachers with 25+ years of experience ($\bar{x}=3.59$) were lower than teachers with 0-4 years ($\bar{x}=4.13$), 5-9 years ($\bar{x}=4.07$), and 10-14 years ($\bar{x}=3.95$) of teaching experience. The mean value for teachers who had been teaching English for 20-24 years was 3.99, which was higher than the mean values for 10-14 years ($\bar{x}=3.95$), 15-19 years ($\bar{x}=3.85$) and 25+ years of experience ($\bar{x}=3.59$). However, this difference was not statistically meaningful.

Similar results were observed for Tukey HSD conducted with TISES Factor 1. As Table 22 suggests, a significant difference was observed between the participants teaching for 25+ years and the ones teaching for 0-4 years ($p=.00$), 5-9 years ($p=.00$), and 10-14 years ($p=.03$). To elaborate, teachers with 0-4 years of experience ($\bar{x}=4.15$), 5-9 years of experience ($\bar{x}=4.08$), and 10-14 years of experience ($\bar{x}=3.99$) felt more confident about implementing technology into their lessons appropriately and more convinced about their skills and capabilities when compared to EFL teachers with an experience of 25+ years ($\bar{x}=4.15$). The mean value for teachers who had been teaching English for 20-24 years was 3.99, which was slightly higher than the mean values for 10-14 years ($\bar{x}=3.98$), 15-19 years ($\bar{x}=3.88$), and 25+ years ($\bar{x}=3.59$). However, this difference was not statistically meaningful.

As can be inferred from Table 22, the significant difference in TISES Factor 2 in relation to participant teachers' teaching experience stemmed from the participants who had been teaching for 25+ years and the ones teaching for 0-4 years

($p=.03$), and 5-9 years ($p=.01$). Participants who had 25+ years of experience felt less confident about their capabilities to overcome difficulties related to technology integration stemming from external factors ($\bar{x}=3.61$) when compared to teachers with 0-4 years of experience ($\bar{x}=4.03$) and 5-9 years of experience ($\bar{x}=4.05$). Therefore, when TISES Overall values as well as its subdimensions are considered, it is possible to conclude that teachers engaged in teaching as a profession for more than 25 years in this specific group had the lowest levels of TISE.

Eleventh, the Kruskal Wallis test was implemented to uncover any variations in TISES Overall, Factor 1, and Factor 2 regarding the facilities at participant teachers' institutions. The results of the analysis are given below.

Table 23. Results of Kruskal Wallis Test for TISES Overall, Factor 1, and Factor 2 Regarding Facilities of Institution

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>TISES Overall</i>	<i>Facilities at institution</i>	personal computers	116	124.06	7.777	2	.02*
		only common computers	91	105.92			
		no personal or public computers	19	85.34			
<i>Computer Technology Capabilities and Strategies</i>	<i>Facilities at institution</i>	personal computers	116	124.65	8.346	2	.01*
		only common computers	91	105.12			
		no personal or public computers	19	85.58			
<i>External Influences of Computer Technology Uses</i>	<i>Facilities at institution</i>	personal computers	116	120.57	4.180	2	.12
		only common computers	91	109.35			
		no personal or public computers	19	90.21			

* $p<.05$

As Table 23 illustrates, there was not a statistically significant difference in Factor 2 regarding the facilities of instructors' workplace ($p=.12$). However, EFL teachers' TISE ($p=.02$) and their computer technology capabilities and strategies ($p=.01$) differed significantly in relation to the facilities of their workplace. Below are given the posthoc test results to understand which groups created the significant difference.

Table 24. Results of Tukey HSD for TISES Overall and Factor 1 Regarding Facilities of Institution

Facilities at Institution (I)	Facilities at Institution (J)	<i>TISES Overall</i>			<i>Factor 1</i>		
		$\bar{x}$ (I-J)	Std. Error	P	$\bar{x}$ (I-J)	Std. Error	P
<i>Personal Computers</i>	Only Common Computers	.176	.081	.08	.194	.086	.06
	No Personal or Common Computers	.372	.144	.02*	.413	.152	.02*
<i>Only Common Computers</i>	Personal Computers	-.176	.081	.08	-.194	.086	.06
	No Personal or Common Computers	.195	.147	.38	.219	.155	.33
<i>No Personal or Common Computers</i>	Personal Computers	-.372	.144	.02*	-.413	.152	.02*
	Only Common Computers	-.195	.147	.38	-.219	.155	.33

*p<.05

Based on Tukey HSD results, the significant difference in TISES Overall and Factor 1 in relation to facilities of participant teachers' institutions stemmed from the participants who owned a personal computer or laptop provided by the institution and the ones with no access to a personal and/or common computers at their workplace ($p=.02$). Participants who were provided with a personal computer/laptop had self-efficacy ($\bar{x}=4.04$) and they felt more confident about their technology integration strategies and capabilities ($\bar{x}=4.07$) than the other groups. That is, EFL teachers who had an access to neither personal nor common computers/laptops at their workplace possessed the lowest level of TISE ($\bar{x}=3.67$) and felt less confident about their technology implementation strategies ($\bar{x}=3.65$). The mean values for teachers who only had access to common computers/laptops in common areas were 3.86 for TISES Overall and 3.87 for Factor 1; however, this group did not create a statistically significant difference in either variable.

Next, one-way ANOVA was implemented to reveal any variations in TISES Overall, and Factor 1 regarding graduate programs. The results of the analyses are given below in Table 25.

Table 25. Results of One-Way ANOVA for TISES Overall, and Factor 1 Regarding Graduate Programs

Variables	Groups	n	$\bar{x}$	Sd.	St. E. Mean	F	p
<i>TISES Overall</i>	English Language Teaching	130	3.95	.57	.050	.768	.46
	Other Language Departments	83	3.95	.63	.069		
	Other	13	3.74	.52	.144		
	Total	226	3.94	.59	.039		
<i>Computer Technology Capabilities and Strategies</i>	English Language Teaching	130	3.96	.61	.053	.657	.51
	Other Language Departments	83	3.97	.66	.072		
	Other	13	3.76	.56	.155		
	Total	226	3.95	.62	.041		

*p<.05

It can be understood from Table 25 that the graduate programs of the participant teachers did not create a significant change in their TISE beliefs ($p=.46$) and their perceived computer technology capabilities and strategies ($p=.51$). When the mean scores were considered, it was observed that graduates of non-language related departments had the lowest TISE both for the total scale ($\bar{x}=3.74$), and the first factor ($\bar{x}=3.76$). As for Factor 2, the Kruskal Wallis test was implemented to reveal any variations regarding graduate programs. The results of the analyses are given below in Table 26.

Table 26. Results of Kruskal Wallis Test for Factor 2 Regarding Graduate Programs

Scale	Variable	Groups	n	$\bar{x}$	X ²	df	p
<i>External Influences of Computer Technology Uses</i>	<i>Graduate Programs</i>	English Language Teaching	130	114.52	.645	2	.72
		Other Language Departments	83	114.10			
		Other	13	99.46			

*p<.05

In line with test results of Factor 2, the graduate programs of the participant teachers did not create a significant change in their self-efficacy regarding external influences of technology integration ($p=.72$). Yet, it is seen that graduates of non-language related departments ($\bar{x}=99.46$) had the lowest level of self-efficacy. Moreover, participants who studied at the Department of English Language Teaching ($\bar{x}=114.52$) and other language departments ($\bar{x}=114.10$) had a similar level of self-efficacy.

Lastly, one-way ANOVA was implemented to investigate any variations in TISES Overall, and Factor 1 regarding the last degree completed. The results of the analyses are given in Table 27 below.

Table 27. Results of One-Way ANOVA for TISES Overall and Factor 1 Regarding Last Degree Completed

Variables	Groups	n	$\bar{x}$	Sd.	St. E. Mean	F	p
<i>TISES Overall</i>	Bachelor's degree	84	3.89	.59	.064	.409	.66
	Master's degree	124	3.97	.60	.054		
	Doctor of Philosophy	18	3.95	.50	.119		
	Total	226	3.94	.59	.039		
<i>Computer Technology Capabilities and Strategies</i>	Bachelor's degree	84	3.91	.63	.068	.335	.71
	Master's degree	124	3.98	.64	.058		
	Doctor of Philosophy	18	3.97	.50	.117		
	Total	226	3.95	.62	.041		

*p<.05

Table 27 shows that there was not a statistically significant difference in participant EFL teachers' TISE (p=.66) and their perceived computer technology capabilities and strategies (p=.71) in relation to their level of education. When the mean values were taken into consideration, graduates of a master's program ($\bar{x}_{TISES\ Overall}=3.97$, $\bar{x}_{Factor\ 1}=3.98$) had the highest level of self-efficacy beliefs, and they were followed by graduates of doctor of philosophy ($\bar{x}_{TISES\ Overall}=3.95$, $\bar{x}_{Factor\ 1}=3.97$). In a similar vein, the Kruskal Wallis test was implemented to investigate any variations in TISES Factor 2 regarding the last degree completed. The results of the analyses are given in Table 28 below.

Table 28. Results of Kruskal Wallis Test for Factor 2 Regarding Last Degree Completed

Scale	Variable	Groups	n	$\bar{x}$	X ²	df	p
<i>External Influences of Computer Technology Uses</i>	<i>Last Degree Completed</i>	Bachelor's degree	84	105.20	2.465	2	.29
		Master's degree	124	119.52			
		Doctor of Philosophy	18	110.78			

*p<.05

Similar to previous findings, participants' level of education did not create a significant difference in their self-efficacy for external influences of technology

integration ($p=.29$). Yet, it is seen that the ones with a master's degree had the highest level of self-efficacy ($\bar{x}=119.52$) followed by graduates of doctor of philosophy ($\bar{x}=110.78$).

4.5 Findings for the Fifth Research Question

The fifth question of the study aims to find out whether EFL teachers' foreign language teaching anxiety significantly differs by *age, gender, institution type, teaching experience, current teaching conditions, teaching hours per week, variety of levels instructors teach, the adopted system at their current institution, graduate programs, last degree completed, whether their current institution provides training on technology integration, how beneficial they find the training, facilities of their institution, and facilities of language classrooms*.

First, the Mann-Whitney U Test was conducted to uncover any variations in FLTAS as well as in all the five subdimensions regarding gender. The results of the analysis are presented in Table 29 below.

Table 29. Results of Mann-Whitney U Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Gender

Scale	Variable	Groups	n	Mean Rank	Sum of Ranks	U	p
<i>FLTAS Overall</i>	Gender	Female	166	115.73	19211.00	4444.000	.29
		Male	59	105.32	6214.00		
<i>Teaching a Particular Language Skill</i>	Gender	Female	196	112.30	18641.00	4780.000	.73
		Male	59	114.98	6784.00		
<i>Target Language Performance</i>	Gender	Female	166	113.92	18910.00	4745.000	.71
		Male	59	110.42	6515.00		
<i>Making Mistakes</i>	Gender	Female	166	118.05	19595.50	4059.500	.05
		Male	59	98.81	5829.50		
<i>Being Compared to Fellow Teachers</i>	Gender	Female	166	118.12	19608.00	4047.000	.03*
		Male	59	98.59	5817.00		
<i>Using Native Language</i>	Gender	Female	166	114.13	18945.50	4709.500	.65
		Male	59	109.82	6479.50		

* $p<.05$

Since one of the participants did not prefer to mention his/her gender, 225 participants were included in the analysis. As can be observed from Table 29, the participant instructors' gender did not create a meaningful difference in their foreign language teaching anxiety ($p=.29$). Additionally, when the subdimensions of the FLTAS are considered, there was not a significant difference in participant teachers' anxiety of teaching a particular language skill ($p=.73$), target language performance ($p=.71$), making mistakes ($p=.05$), and using native language ($p=.65$) in terms of gender. The only significant difference was observed in participant teachers' anxiety about being compared to fellow teachers ($p=.03$). It can be suggested that female EFL instructors ($\bar{x}=118.12$) felt more anxious than male instructors ($\bar{x}=98.59$) about being compared to other teachers in terms of their teaching methods and English proficiency.

Second, the Mann-Whitney U test was conducted to reveal any variations in FLTAS Overall as well as in all the five subdimensions regarding participant teachers' workplaces, facilities of language classrooms, and whether their institutions provide any training on technology integration. The results of the analysis are displayed in Table 30 below.

Table 30. Results of Mann-Whitney U Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Institution Type, Facilities of Language Classrooms, and Training on Technology Integration

Scale	Variable	Groups	n	Mean Rank	Sum of Ranks	U	p
<i>FLTAS Overall</i>	Institution Type	State	102	109.05	11123.50	5870.500	.35
		Private	124	117.16	14527.50		
	Facilities of Language Classrooms	With Smartboard	62	124.81	7738.50	4320.500	.09
		Without Smartboard	163	108.51	17686.50		
	Training on Technology Integration	Yes	116	108.75	12615.50	5829.500	.26
		No	110	118.50	13035.50		
<i>Teaching a Particular Language Skill</i>	Institution Type	State	102	114.22	11650.00	6251.000	.88
		Private	124	112.91	14001.00		

<i>Target Language Performance</i>	Facilities of Language Classrooms	With Smartboard	62	123.36	7648.50	4410.500	.13
		Without Smartboard	163	109.06	17776.50		
	Training on Technology Integration	Yes	116	109.70	12725.00	5939.000	.36
		No	110	117.51	12926.00		
	Institution Type	State	102	111.70	11393.00	6140.000	.70
		Private	124	114.98	14258.00		
	Facilities of Language Classrooms	With Smartboard	62	122.06	7567.50	4491.500	.19
		Without Smartboard	163	109.56	17857.50		
	Training on Technology Integration	Yes	116	109.56	12709.00	5923.000	.34
		No	110	117.65	12942.00		
	Institution Type	State	102	105.75	10787.00	5534.000	.10
		Private	124	119.87	14864.00		
<i>Making Mistakes</i>	Facilities of Language Classrooms	With Smartboard	62	124.74	7734.00	4325.000	.09
		Without Smartboard	163	108.53	17691.00		
	Training on Technology Integration	Yes	116	109.72	12727.50	5941.500	.37
		No	110	117.49	12923.50		
	Institution Type	State	102	115.67	11798.00	6103.000	.63
		Private	124	111.72	13853.00		
	Facilities of Language Classrooms	With Smartboard	62	115.09	7135.50	4923.500	.75
		Without Smartboard	163	112.21	18289.50		
	Training on Technology Integration	Yes	116	108.54	12591.00	5805.000	.22
		No	110	118.73	13060.00		
	Institution Type	State	102	105.53	10764.00	5511.000	.09
		Private	124	120.06	14887.00		
<i>Using Native Language</i>	Institution Type	State	102	105.53	10764.00	5511.000	.09
		Private	124	120.06	14887.00		

Facilities of Language Classrooms	With Smartboard	62	118.40	7341.00	4718.000	.43
	Without Smartboard	163	110.94	18084.00		
Training on Technology Integration	Yes	116	112.19	13014.50	6228.500	.75
	No	110	114.88	12636.50		

*p<.05

To start with, as Table 30 suggests, the participants' workplaces did not create a significant change in their FLTA ($p=.35$) as well as in each anxiety type constituting the subdimensions of the FLTAS with a p -value ranging from .09 to .88. Even though the difference was not statistically meaningful, EFL instructors employed at private universities seemed to have higher levels of anxiety about target language performance ($\bar{x}=114.98$), making mistakes ($\bar{x}=119.87$), using native language ($\bar{x}=120.06$), and in FLTAS Overall ($\bar{x}=117.16$). Teachers working at state universities, on the other hand, seemed to be more worried about teaching a particular language skill ($\bar{x}=114.22$) and being compared to fellow teachers ($\bar{x}=115.67$).

In addition, one of the participant teachers did not answer the question regarding classroom facilities since she/he only taught online lessons. Therefore, 225 answers were included in this analysis. As can be seen in Table 30, the facilities of the language classrooms did not create a significant difference in EFL teachers' FLTA ($p=.09$). Furthermore, when the subdimensions of the FLTAS were considered, there was not a significant difference in participant teachers' anxiety of teaching a particular language skill ($p=.13$), target language performance ($p=.19$), making mistakes ($p=.09$), being compared to fellow teachers ($p=.75$), and using native language ($p=.43$) in terms of facilities of language classrooms at their workplaces. Although there was not a statistically significant difference, teachers who had access to a smartboard had a higher level of FLTA ($\bar{x}=124.81$). Additionally, they seemed to have higher levels of anxiety about teaching a particular language skill ($\bar{x}=123.36$), target language performance ($\bar{x}=122.06$), making mistakes ($\bar{x}=124.74$), being compared to fellow teachers ($\bar{x}=115.09$), and using native language ($\bar{x}=118.40$).

Finally, when the participant teachers were asked whether their current institution provided any training on technology integration, 116 teachers replied ‘Yes’ while 110 of them said ‘No’. As Table 30 presents, training on technology integration provided by the participant teachers’ institutions did not lead to a meaningful difference in teachers’ FLTAS ($p=.26$) as well as in each one of the subdimensions with a p -value ranging from .22 to .75. However, when the mean scores of FLTAS Overall ($\bar{x}=118.50$), anxiety about teaching a particular language skill ($\bar{x}=117.51$), target language performance ($\bar{x}=117.65$), making mistakes ($\bar{x}=117.49$), being compared to fellow teachers ($\bar{x}=118.73$), and using native language ($\bar{x}=114.88$) were considered, teachers who replied ‘No’ experienced higher levels of anxiety.

Third, the Kruskal Wallis test was implemented to reveal any variations in FLTAS Overall as well as in all the five subdimensions regarding the effectiveness of training on technology integration. The results are shown in Table 31.

Table 31. Results of Kruskal Wallis Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Effectiveness of Training on Technology Integration

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>FLTAS Overall</i>	<i>Effectiveness of Training</i>	Not beneficial at all	7	83.14	9.197	3	.02*
		Quite beneficial	52	62.11			
		Mostly beneficial	41	56.85			
		Very beneficial	16	40.22			
<i>Teaching a Particular Language Skill</i>	<i>Effectiveness of Training</i>	Not beneficial at all	7	85.29	11.519	3	.00*
		Quite beneficial	52	62.61			
		Mostly beneficial	41	56.73			
		Very beneficial	16	37.97			
<i>Target Language Performance</i>	<i>Effectiveness of Training</i>	Not beneficial at all	7	88.29	11.213	3	.01*
		Quite beneficial	52	62.13			
		Mostly beneficial	41	55.60			
		Very beneficial	16	41.09			
<i>Making Mistakes</i>	<i>Effectiveness of Training</i>	Not beneficial at all	7	77.86	5.767	3	.12
		Quite beneficial	52	61.11			
		Mostly beneficial	41	57.61			
		Very beneficial	16	43.84			
<i>Being Compared to Fellow Teachers</i>	<i>Effectiveness of Training</i>	Not beneficial at all	7	84.71	11.681	3	.00*
		Quite beneficial	52	62.79			
		Mostly beneficial	41	56.00			
		Very beneficial	16	39.50			
<i>Using Native</i>	<i>Effectiveness of Training</i>	Not beneficial at all	7	53.00	1.038	3	.79
		Quite beneficial	52	61.84			

<i>Language</i>	Mostly beneficial	41	55.61
	Very beneficial	16	57.47

* $p < .05$

As can be understood from Table 31, there was not a statistically significant difference in Factor 3 ($p = .12$) and Factor 5 ($p = .79$) regarding the effectiveness of the training they got at their workplace. However, EFL teachers' FLTA differed significantly in terms of their perceptions of the training on technology integration provided by their workplace ($p = .02$). Additionally, the analyses conducted with the factors of FLTAS, namely teaching a particular language skill ($p = .00$), target language performance ($p = .01$), and being compared to fellow teachers ($p = .00$) presents similar results. Below are given the posthoc test results to understand which groups created these differences.

Table 32. Results of Tukey HSD for FLTAS Overall, Factor 1, Factor 2, and Factor 4 Regarding Effectiveness of Training on Technology Integration

How Effective (I)	How Effective (J)	<i>FLTAS Overall</i>			<i>Factor 1</i>			<i>Factor 2</i>			<i>Factor 4</i>		
		$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p
<i>Not at all</i>	Quite	.329	.195	.33	.260	.208	.59	.382	.186	.17	.767	.365	.15
	Mostly	.470	.198	.09	.380	.211	.28	.491	.189	.05	1.069	.370	.02*
	Very	.672	.220	.01*	.644	.234	.03*	.643	.209	.01*	1.424	.410	.00*
<i>Quite</i>	Not at all	-.329	.195	.33	-.260	.208	.59	-.382	.186	.17	-.767	.365	.158
	Mostly	.140	.101	.51	.119	.108	.68	.109	.096	.67	.301	.189	.38
	Very	.342	.139	.07	.383	.148	.05	.261	.132	.20	.656	.259	.06
<i>Mostly</i>	Not at all	-.470	.198	.09	-.380	.211	.28	-.491	.186	.05	-1.069	.370	.02*
	Quite	-.140	.101	.51	-.119	.108	.68	-.109	.096	.67	-.301	.189	.38
	Very	.202	.143	.49	.263	.152	.31	.152	.136	.68	.354	.267	.54
<i>Very</i>	Not at all	-.672	.220	.01*	-.644	.234	.03*	-.643	.209	.01*	-1.424	.410	.00*
	Quite	-.342	.139	.07	-.383	.148	.05	-.261	.132	.20	-.656	.259	.06
	Mostly	-.202	.143	.49	-.263	.152	.31	-.152	.136	.68	-.354	.267	.54

* $p < .05$

Based on the Tukey HSD results, the significant difference in FLTA relation to participant teachers' perceptions of the effectiveness of training on technology integration stemmed from the teachers who found the training 'not beneficial at all' and the ones who believed that the training was 'very beneficial' ($p = .01$). While EFL

instructors believing that the training was not effective had the highest level of foreign language teaching anxiety ($\bar{x}=2.07$), the participants perceiving the training as very effective had the lowest foreign language teaching anxiety ($\bar{x}=1.39$).

As can be seen in Table 32, similar results were found for Factor 1, namely anxiety of teaching a particular language skill ($p=.03$), and Factor 2, namely anxiety regarding target language performance ($p=.03$). EFL instructors believing that the training was not effective were more worried about teaching a particular language skill ($\bar{x}=1.90$) and regarding English language performance ($\bar{x}=1.83$) than other groups.

Furthermore, as Table 32 suggests, the meaningful difference in anxiety about being compared to fellow teachers regarding the effectiveness of training on technology integration stemmed from participants replying to the question by saying ‘not beneficial at all’ and the ones who said ‘mostly beneficial’ ($p=.02$) and ‘very beneficial’ ($p=.00$). To elaborate, teachers believing that the training they got was very beneficial ($\bar{x}=1.21$) had the lowest level of anxiety followed by the participants who thought the training was ‘mostly beneficial’ ($\bar{x}=1.57$) whereas the instructors defining the training they got as ‘not beneficial at all’ ($\bar{x}=2.64$) were the most concerned group. To conclude, EFL instructors who stated that they did not benefit from the training on technology integration provided by their workplace were more worried about foreign language teaching, whereas teachers who thought that the training was very beneficial felt less anxious.

Fourth, the Kruskal Wallis test was used to uncover any variations in FLTAS Overall as well as in all the five subdimensions by EFL teachers’ current teaching conditions. The results of the analysis are given in Table 33 below.

Table 33. Results of Kruskal Wallis Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Current Teaching Conditions

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>FLTAS Overall</i>	<i>Teaching Conditions</i>	face-to-face	50	118.64	8.721	5	.12
		online	30	93.93			
		hybrid	15	81.67			
		face-to-face and online	117	121.24			
		face-to-face and hybrid	5	120.60			

Teaching a Particular Language Skill	Teaching Conditions	face-to-face, online, and hybrid	9	98.67	3.223	5	.66
		face-to-face	50	115.78			
		online	30	98.37			
		hybrid	15	98.67			
		face-to-face and online	117	117.95			
		face-to-face and hybrid	5	125.70			
		face-to-face, online, and hybrid	9	111.33			
Target Language Performance	Teaching Conditions	face-to-face	50	113.36	7.753	5	.17
		online	30	91.38			
		hybrid	15	93.70			
		face-to-face and online	117	122.02			
		face-to-face and hybrid	5	130.70			
		face-to-face, online, and hybrid	9	100.67			
Making Mistakes	Teaching Conditions	face-to-face	50	122.54	9.297	5	.09
		online	30	98.35			
		hybrid	15	80.77			
		face-to-face and online	117	119.57			
		face-to-face and hybrid	5	122.50			
		face-to-face, online, and hybrid	9	84.44			
Being Compared to Fellow Teachers	Teaching Conditions	face-to-face	50	115.59	8.164	5	.14
		online	30	103.92			
		hybrid	15	79.90			
		face-to-face and online	117	119.69			
		face-to-face and hybrid	5	141.40			
		face-to-face, online, and hybrid	9	93.83			
Using Native Language	Teaching Conditions	face-to-face	50	117.10	4.804	5	.44
		online	30	109.60			
		hybrid	15	81.53			
		face-to-face and online	117	117.86			
		face-to-face and hybrid	5	96.30			
		face-to-face, online, and hybrid	9	112.67			

*p<.05

As can be observed in Table 33, the participants' FLTA ($p=.12$), worry about teaching a particular skill ($p=.66$), target language performance ($p=.17$), making mistakes ($p=.09$), being compared to fellow teachers ($p=.14$), and using native language ($p=.44$) did not differ significantly in relation to their current teaching conditions. However, when the mean scores were considered, it was observed that teachers engaged in face-to-face and hybrid lessons were more concerned about teaching a particular language skill ($\bar{x}=125.70$), target language performance

($\bar{x}$ =130.70), and being compared to fellow teachers ($\bar{x}$ =141.40). On the other hand, EFL instructors teaching face-to-face as well as online lessons held higher levels of FLTAS Overall ($\bar{x}$ =121.24) and anxiety about using their native language ($\bar{x}$ =117.86).

Fifth, the Kruskal Wallis test was conducted to reveal any variations in FLTAS Overall as well as in all the five subdimensions regarding the variety of levels EFL instructors teach. The results are presented in Table 34 below.

Table 34. Results of Kruskal Wallis Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Variety of Levels Instructors Teach

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>FLTAS Overall</i>	<i>Variety of Levels</i>	1 level	75	100.87	9.306	3	.02*
		2 different levels	60	117.24			
		3 different levels	47	106.68			
		4+ different levels	44	137.22			
<i>Teaching a Particular Language Skill</i>	<i>Variety of Levels</i>	1 level	75	102.40	5.515	3	.13
		2 different levels	60	116.89			
		3 different levels	47	110.85			
		4+ different levels	44	130.63			
<i>Target Language Performance</i>	<i>Variety of Levels</i>	1 level	75	97.81	9.838	3	.02*
		2 different levels	60	116.47			
		3 different levels	47	113.99			
		4+ different levels	44	135.67			
<i>Making Mistakes</i>	<i>Variety of Levels</i>	1 level	75	108.75	8.439	3	.03*
		2 different levels	60	112.27			
		3 different levels	47	100.11			
		4+ different levels	44	137.58			
<i>Being Compared to Fellow Teachers</i>	<i>Variety of Levels</i>	1 level	75	102.44	8.797	3	.03*
		2 different levels	60	118.65			
		3 different levels	47	104.70			
		4+ different levels	44	134.73			
<i>Using Native Language</i>	<i>Variety of Levels</i>	1 level	75	103.36	5.109	3	.16
		2 different levels	60	127.61			
		3 different levels	47	108.39			
		4+ different levels	44	117.00			

* $p < .05$

As Table 34 illustrates, EFL teachers' FLTA differed significantly in terms of the variety of levels they taught ($p=.02$). Furthermore, the analyses conducted with Factor 2 ($p=.02$), Factor 3 ($p=.03$), Factor 4 ($p=.03$) present similar results whereas

no significant variations were observed for Factor 1 ($p=.13$) and Factor 5 ($p=.16$). Below are given the posthoc test results to check which groups created the significant difference for each group.

Table 35. Results of Tukey HSD for FLTAS Overall, Factor 2, and Factor 4 and Results of LSD for Factor 3 Regarding Variety of Levels Instructors Teach

Variety of Levels (I)	Variety of Levels (J)	<i>FLTAS Overall</i>			<i>Factor 2</i>			<i>Factor 4</i>			<i>Factor 3</i>		
		$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p
1 Level	2	-.144	.090	.38	-.130	.087	.44	-.191	.171	.68	-.041	.130	.75
	3	-.086	.097	.81	-.159	.094	.33	-.111	.184	.93	.033	.140	.81
	4+	-.315	.099	.00*	-.358	.095	.00*	-.525	.188	.02*	-.345	.143	.01*
2 Levels	1	.144	.090	.38	.130	.087	.44	.191	.171	.68	.041	.130	.75
	3	.058	.102	.94	-.029	.098	.99	.080	.193	.97	.074	.146	.61
	4+	-.171	.103	.35	-.228	.100	.10	-.334	.197	.32	-.304	.149	.04*
3 Levels	1	.086	.097	.81	.159	.094	.33	.111	.184	.93	-.033	.140	.81
	2	-.058	.102	.94	.029	.098	.99	-.080	.193	.97	-.074	.146	.61
	4+	-.229	.109	.15	-.199	.106	.23	-.414	.208	.19	-.378	.157	.01*
4+ Levels	1	.315	.099	.00*	.358	.095	.00*	.525	.188	.02*	.345	.143	.01*
	2	.171	.103	.35	.228	.100	.10	.334	.197	.32	.304	.149	.04*
	3	.229	.109	.15	.199	.106	.23	.414	.208	.19	.378	.157	.01*

* $p<.05$

As can be observed in Table 35, the significant difference in FLTAS in relation to how many different levels EFL instructors taught stemmed from the participants who taught 4+ different levels and the ones teaching students from the same proficiency level ($p=.00$). To elaborate, teachers teaching 4+ different levels had higher foreign language anxiety ($\bar{x}=1.90$) when compared to the other group ($\bar{x}=1.58$).

Similar results were found for Factor 2 and Factor 4 which are anxiety of target language performance ($p=.00$) and anxiety of being compared to fellow teachers ($p=.02$). EFL instructors teaching 4+ different levels experienced higher level of anxiety for target language performance ($\bar{x}=1.67$) and being compared to other English teachers ($\bar{x}=2.15$) than the ones teaching the same level ($\bar{x}_{\text{factor2}}=1.31$, $\bar{x}_{\text{factor4}}=1.63$).

When it comes to Factor 3, which is the anxiety of making mistakes, the significant difference stemmed from participants who taught 4+ levels and the ones who taught 1 level ($p=.01$), 2 levels ($p=0.4$), and 3 different levels ($p=.01$). EFL instructors teaching 4+ different levels ($\bar{x}=2.09$) were the most concerned group about making mistakes while teaching English whereas participants who taught 3 levels ($\bar{x}=1.71$) were the least concerned group among the participant teachers.

Sixth, Kruskal Wallis test was conducted to reveal any variations in FLTAS Overall as well as in all the five subdimensions regarding participant teachers' weekly teaching hours. The results are shown in Table 36.

Table 36. Results of Kruskal Wallis Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Teaching Hours per Week

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>FLTAS Overall</i>	<i>Teaching Hours per Week</i>	0-12 hours	50	103.69	1.861	2	.39
		13-20 hours	129	114.37			
		21+ hours	47	121.54			
<i>Teaching a Particular Language Skill</i>	<i>Teaching Hours per Week</i>	0-12 hours	50	107.25	.987	2	.61
		13-20 hours	129	117.12			
		21+ hours	47	110.22			
<i>Target Language Performance</i>	<i>Teaching Hours per Week</i>	0-12 hours	50	96.10	4.736	2	.09
		13-20 hours	129	117.95			
		21+ hours	47	119.80			
<i>Making Mistakes</i>	<i>Teaching Hours per Week</i>	0-12 hours	50	103.87	2.297	2	.31
		13-20 hours	129	113.44			
		21+ hours	47	123.90			
<i>Being Compared to Fellow Teachers</i>	<i>Teaching Hours per Week</i>	0-12 hours	50	101.81	2.292	2	.31
		13-20 hours	129	117.37			
		21+ hours	47	115.32			
<i>Using Native Language</i>	<i>Teaching Hours per Week</i>	0-12 hours	50	131.33	6.777	2	.03*
		13-20 hours	129	104.36			
		21+ hours	47	119.61			

* $p<.05$

As shown in Table 36, there was not a statistically significant difference in participant teachers' FLTA by teaching hours per week ($p=.39$). Similar results were observed for anxiety of teaching a particular language skill ($p=.61$), target language performance ($p=.09$), making mistakes ($p=.31$), and being compared to fellow teachers ($p=.31$). The only significant difference was observed in Factor 5, the

anxiety of using the native language ($p=.03$). Below are given the posthoc test results to understand which groups created this significant difference.

Table 37. Results of LSD for Factor 5 Regarding Teaching Hours per Week

		<i>Factor 5</i>			
Teaching Hours per Week (I)	Teaching Hours per Week (J)	$\bar{x}$ (I-J)	SE	p	
0-12 hours	13-20	.321	.140	.02*	
	21+	.142	.170	.40	
13-20 hours	0-12	-.321	.140	.02*	
	21+	-.179	.143	.21	
21+ Hours	0-12	-.142	.170	.40	
	13-20	.179	.143	.21	

* $p<.05$

As can be seen in Table 37, the meaningful difference in the participant teachers' anxiety of using native language in relation to their weekly teaching loads stemmed from the ones who taught 0-12 hours and 13-20 hours weekly ($p=.02$). That is, EFL instructors whose weekly teaching load was 13-20 hours ($\bar{x}=2.22$) held a lower level of anxiety regarding using Turkish than the ones who taught 0-12 hours per week ($\bar{x}=2.54$).

Seventh, Kruskal Wallis test was conducted to reveal any variations in FLTAS Overall as well as in all the five subdimensions regarding the adopted system at participant teachers' workplaces. The results are presented in Table 38 below.

Table 38. Results of Kruskal Wallis Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Adopted System at Workplace

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
FLTAS Overall	Adopted System	Modular	70	115.09	0.63	2	.96
		Yearly	89	113.05			
		Term-based	67	112.44			
Teaching a Particular Language Skill	Adopted System	Modular	70	110.33	.730	2	.69
		Yearly	89	111.78			
		Term-based	67	119.10			
Target Language Performance	Adopted System	Modular	70	116.36	.343	2	.84
		Yearly	89	113.89			
		Term-based s	67	109.99			
Making Mistakes	Adopted System	Modular	70	122.89	2.177	2	.33
		Yearly	89	110.46			
		Term-based	67	107.74			

<i>Being Compared to Fellow Teachers</i>	<i>Adopted System</i>	Modular	70	109.33	1.639	2	.44
		Yearly	89	120.09			
		Term-based	67	109.10			
<i>Using Native Language</i>	<i>Adopted System</i>	Modular	70	110.90	.269	2	.87
		Yearly	89	116.13			
		Term-based	67	112.72			

*p<.05

While some institutions in Turkey follow a yearly program and EFL instructors teach same classes throughout the year, some others may teach according to a term-based syllabus. On the other hand, some institutions adopt a modular system and the classes instructors teach may change in line with module exams throughout the semester. As shown in Table 38, there was not a statistically significant difference in participant teachers' FLTA by adopted system at institutions participant teachers were employed at ($p=.96$). Similar results were observed for anxiety of teaching a particular language skill ($p=.69$), target language performance ($p=.84$), making mistakes ($p=.33$), being compared to fellow teachers ($p=.44$), and using native language ($p=.87$). Though not statistically significant, it is seen that instructors working in a modular system ($\bar{x}=115.09$) had the highest anxiety for FLTAS overall whereas teachers working according to a yearly program felt anxious the most about being compared to fellow teachers ($\bar{x}=120.09$) and using the native language ($\bar{x}=116.13$). While instructors working in a modular system had the highest level of anxiety about making mistakes ($\bar{x}=122.89$), teachers employed in a term-based program felt anxious the most about teaching a particular language skill ($\bar{x}=119.10$).

Eighth, the Kruskal Wallis test was conducted to reveal any variations in FLTAS Overall as well as in all the five subdimensions by participant teachers' ages. The results are given in Table 39 below.

Table 39. Results of Kruskal Wallis Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Age

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>FLTAS Overall</i>	<i>Age</i>	20-29	45	135.26	18.462	3	.00*
		30-39	95	122.48			
		40-49	52	101.27			
		50+	34	78.31			
<i>Teaching a</i>	<i>Age</i>	20-29	45	129.08	12.828	3	.00*

<i>Particular Language Skill</i>		30-39	95	122.84	17.283	3	.00*
		40-49	52	101.39			
		50+	34	85.29			
<i>Target Language Performance</i>	<i>Age</i>	20-29	45	127.78			
		30-39	95	126.47			
		40-49	52	98.06			
		50+	34	81.97			
<i>Making Mistakes</i>	<i>Age</i>	20-29	45	143.74			
		30-39	95	117.75			
		40-49	52	103.98			
		50+	34	76.16			
<i>Being Compared to Fellow Teachers</i>	<i>Age</i>	20-29	45	130.92			
		30-39	95	116.03			
		40-49	52	105.19			
		50+	34	96.07			
<i>Using Native Language</i>	<i>Age</i>	20-29	45	120.78			
		30-39	95	116.69			
		40-49	52	108.33			
		50+	34	102.87			

*p<.05

As Table 39 illustrates, EFL teachers' FLTA differed significantly in terms of their age ($p=.00$). Furthermore, the analyses conducted with Factor 1 ($p=.00$), Factor 2 ($p=.00$), and Factor 3 ($p=.00$) present similar results. However, there was not a statistically significant difference in Factor 4 ($p=.06$) and Factor 5 ($p=.56$) regarding age. Below are given the posthoc test results to understand which groups created the significant difference for each factor.

Table 40. Results of Tukey HSD for FLTAS Overall, Factor 1, and Factor 2 Regarding Age

		<i>FLTAS Overall</i>			<i>Factor 1</i>			<i>Factor 2</i>			<i>Factor 3</i>		
Age (I)	Age (J)	$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p
20-29	30-39	.148	.092	.38	.069	.101	.90	.053	.090	.93	.354	.131	.03*
	40-49	.324	.104	.01*	.266	.114	.09	.249	.102	.07	.492	.148	.00*
	50+	.470	.116	.00*	.400	.127	.01*	.380	.114	.00*	.777	.165	.00*
30-39	20-29	-.148	.092	.38	-.069	.101	.90	-.053	.090	.93	-.354	.131	.03*
	40-49	.175	.088	.19	.196	.096	.18	.196	.086	.11	.137	.125	.69
	50+	.322	.102	.01*	.330	.112	.01*	.327	.100	.00*	.422	.145	.02*
40-49	20-29	-.324	.104	.01*	-.266	.114	.09	-.249	.102	.07	-.492	.148	.00*
	30-39	-.175	.088	.19	-.196	.096	.18	-.196	.086	.11	-.137	.125	.69
	50+	.146	.113	.56	.134	.123	.70	.130	.110	.64	.285	.160	.28
50+	20-29	-.470	.116	.00*	-.400	.127	.01*	-.380	.114	.00*	-.777	.165	.00*
	30-39	-.322	.102	.01*	-.330	.112	.01*	-.327	.100	.00*	-.422	.145	.02*
	40-49	-.146	.113	.56	-.134	.123	.70	-.130	.110	.64	-.285	.160	.28

*p<.05

Based on the Tukey HSD results, the significant difference in FLTAS Overall in relation to participant teachers' age stemmed from two main groups of instructors. First, there was a statistically meaningful difference between the participants who were 20-29 and the ones who were 40-49 years old ($p=.01$) and 50+ years old ($p=.00$). In addition, participants who were 30-39 and 50+ years old created a significant difference ($p=.01$). The youngest group of teachers (20-29 years old) had the highest foreign language teaching anxiety ($\bar{x}=1.91$) and teachers who were 30-39 years old followed them ($\bar{x}=1.76$). While the mean score for teachers between 40-49 was 1.59, it was 1.44 for participants who were 50+. That is, the older the teachers got, the less they experienced FLTA.

Similar results were observed for Tukey HSD conducted with FLTAS Factor 1, Factor 2, and Factor 3. First, it is understood that the participants who were 50+ years old felt less anxious about teaching a particular language skill ($\bar{x}=1.36$) than the ones aged 20-29 ($\bar{x}=1.76$) and 30-39 ($\bar{x}=1.69$) and this difference was statistically significant ($p=.01$). That is, as teachers got old, their anxiety regarding teaching language skills decreased. Likewise, the oldest group felt less worried about their target language performances ($\bar{x}=1.20$) than the teachers who were 20-29 ($\bar{x}=1.58$) and 30-39 ($\bar{x}=1.53$) which was again statistically significant ($p=.00$). Similarly, the youngest teachers ($\bar{x}=2.20$) were the most anxious group about making mistakes and created the significant difference when compared to other groups. In addition, there was a significant difference between teachers who were 30-39 years old ($\bar{x}=1.84$) and participants who were 50 and above ($\bar{x}=1.42$). On the other hand, EFL instructors who were 50+ ($\bar{x}=1.42$) felt the least worried about making mistakes while teaching English. In sum, when FLTAS Overall values as well as the above-mentioned subdimensions are considered, it is possible to conclude that younger teachers had higher levels of foreign language teaching anxiety.

Ninth, Kruskal Wallis test was conducted to reveal any variations in FLTAS Overall as well as in all the five subdimensions by participants' teaching experience. The results are shown in Table 41 below.

Table 41. Results of Kruskal Wallis Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Teaching Experience

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>FLTAS Overall</i>	<i>Teaching Experience</i>	0-4 years	31	137.19	19.886	5	.00*
		5-9 years	44	131.89			
		10-14 years	59	117.02			
		15-19 years	28	115.73			
		20-24 years	30	82.52			
		25+ years	34	87.50			
<i>Teaching a Particular Language Skill</i>	<i>Teaching Experience</i>	0-4 years	31	120.89	17.846	5	.00*
		5-9 years	44	139.40			
		10-14 years	59	119.38			
		15-19 years	28	108.20			
		20-24 years	30	82.28			
		25+ years	34	94.96			
<i>Target Language Performance</i>	<i>Teaching Experience</i>	0-4 years	31	120.74	14.795	5	.01*
		5-9 years	44	133.10			
		10-14 years	59	124.26			
		15-19 years	28	103.84			
		20-24 years	30	88.98			
		25+ years	34	92.44			
<i>Making Mistakes</i>	<i>Teaching Experience</i>	0-4 years	31	153.77	25.913	5	.00*
		5-9 years	44	126.18			
		10-14 years	59	111.52			
		15-19 years	28	118.02			
		20-24 years	30	85.03			
		25+ years	34	85.21			
<i>Being Compared to Fellow Teachers</i>	<i>Teaching Experience</i>	0-4 years	31	129.82	7.744	5	.17
		5-9 years	44	127.19			
		10-14 years	59	107.29			
		15-19 years	28	116.41			
		20-24 years	30	97.62			
		25+ years	34	103.29			
<i>Using Native Language</i>	<i>Teaching Experience</i>	0-4 years	31	121.34	8.326	5	.13
		5-9 years	44	114.31			
		10-14 years	59	112.98			
		15-19 years	28	137.70			
		20-24 years	30	91.53			
		25+ years	34	105.66			

*p<.05

As can be seen in Table 41, there was not a statistically significant difference in Factor 4 (p=.17) and Factor 5 (p=.13) in relation to years of teaching experience. However, EFL teachers' FLTA differed significantly in terms of their teaching experience (p=.00). Furthermore, the analyses conducted with Factor 1 (p=.00), Factor 2 (p=.01), Factor 3 (p=.00) present similar results. Below are given the

posthoc test results to understand which groups created the significant difference for each factor.

Table 42. Results of Tukey HSD for FLTAS Overall, Factor 1, Factor 2, and Factor 3 Regarding Teaching Experience

Teaching Exp. (I)	Teaching Exp. (J)	<i>FLTAS Overall</i>			<i>Factor 1</i>			<i>Factor 2</i>			<i>Factor 3</i>		
		$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p
0-4 years	5-9	.038	.121	1.0	-.150	.131	.86	-.090	.119	.97	.306	.171	.47
	10-14	.193	.114	.53	.027	.124	1.0	.000	.112	1.0	.525	.161	.01*
	15-19	.152	.134	.86	.105	.146	.97	.114	.132	.95	.392	.190	.31
	20-24	.445	.132	.01*	.327	.143	.20	.257	.130	.35	.768	.186	.00*
	25+	.364	.128	.05	.241	.139	.50	.206	.126	.57	.715	.181	.00*
5-9 years	0-4	-.038	.121	1.0	.150	.131	.86	.090	.119	.97	-.306	.171	.47
	10-14	.155	.102	.65	.177	.111	.60	.093	.101	.94	.219	.145	.65
	15-19	.114	.124	.94	.255	.135	.41	.204	.123	.55	.086	.176	.99
	20-24	.407	.122	.01*	.477	.132	.00*	.348	.120	.04*	.462	.172	.08
	25+	.326	.117	.06	.392	.127	.02*	.297	.116	.11	.409	.166	.14
10-14 years	0-4	-.193	.114	.53	-.027	.124	1.0	-.003	.112	1.0	-.525	.161	.01*
	5-9	-.155	.102	.65	-.177	.111	.60	-.093	.101	.94	-.219	.145	.65
	15-19	-.041	.118	.99	.077	.128	.99	.111	.116	.93	-.132	.167	.96
	20-24	.252	.115	.25	.299	.125	.16	.254	.114	.22	.243	.163	.67
	25+	.170	.111	.64	.214	.120	.48	.203	.109	.43	.190	.157	.83
15-19 years	0-4	-.152	.134	.86	-.105	.146	.97	-.114	.132	.95	-.392	.190	.31
	5-9	-.114	.124	.94	-.255	.135	.41	-.204	.123	.55	-.086	.176	.99
	10-14	.041	.118	.99	-.077	.128	.99	-.111	.116	.93	.132	.167	.96
	20-24	.293	.135	.25	.221	.147	.66	.143	.133	.89	.375	.191	.36
	25+	.211	.131	.59	.136	.142	.93	.092	.129	.98	.323	.186	.51
20-24 years	0-4	-.445	.132	.01*	-.327	.143	.20	-.257	.130	.35	-.768	.186	.00*
	5-9	-.407	.122	.01*	-.477	.132	.00*	-.348	.120	.04*	-.462	.172	.08
	10-14	-.252	.115	.25	-.299	.125	.16	-.254	.114	.22	-.243	.163	.67
	15-19	-.293	.135	.25	-.221	.147	.66	-.143	.133	.89	-.375	.191	.36
	25+	-.081	.129	.98	-.085	.140	.99	-.050	.127	.99	-.052	.182	1.0
25+ years	0-4	-.364	.128	.05	-.241	.139	.50	-.206	.126	.57	-.715	.181	.00*
	5-9	-.326	.117	.06	-.392	.127	.02*	-.297	.116	.11	-.409	.166	.14
	10-14	-.170	.111	.64	-.214	.120	.48	-.203	.109	.43	-.190	.157	.83
	15-19	-.211	.131	.59	-.136	.142	.93	-.092	.129	.98	-.323	.186	.51
	20-24	.081	.129	.98	.085	.140	.99	.050	.127	.99	.052	.182	1.0

* $p < .05$

Based on the Tukey HSD results, the significant difference in FLTAS Overall in relation to participant teachers' teaching experience stemmed from the participants who had been teaching for 20-24 years and the ones teaching English for 0-4 years ($p = .01$) and 5-9 years ($p = .01$). To clarify, FLTA of teachers with 20-24 years of experience ($\bar{x} = 1.45$) was lower than participants with 0-4 years ($\bar{x} = 1.89$) and 5-9 years ($\bar{x} = 1.86$) of teaching experience. It was also lower than the mean values for teachers who had been teaching for 25+ years ($\bar{x} = 1.53$), 15-19 years ($\bar{x} = 1.74$), and 10-14 years ($\bar{x} = 1.70$). However, this difference was not statistically meaningful.

Regarding FLTAS Factor 1, anxiety about teaching a particular language skill, the meaningful difference stemmed from the participants who had been teaching for 5-9 years when they were compared to the ones teaching for 20-24 ($p = .00$) and 25+ years ($p = .02$). The least anxious group was teachers who had been working for 20-24 years ($\bar{x} = 1.35$) and they were followed by teachers with 25+ years of experience ($\bar{x} = 1.44$). EFL instructors who had been teaching for 5-9 years ($\bar{x} = 1.83$), however, were the most worried group about teaching a particular language skill among the others.

Furthermore, in terms of Factor 2, which is target language performance, the significant difference stemmed from participants who had been teaching for 5-9 years and 20-24 years ($p = .04$). The participants who had been teaching for 20-24 years ($\bar{x} = 1.25$) had a lower level of anxiety in terms of target language performance than the ones with an experience of 5-9 years ($\bar{x} = 1.60$).

Finally, in terms of Factor 3, which is anxiety of making mistakes, the meaningful difference stemmed from the instructors with an experience of 0-4 years and the ones teaching for 10-14 years ($p = .01$), 20-24 years ($p = .00$), and 25+ years ($p = .00$). While participants who had been teaching for 0-4 years ($\bar{x} = 2.27$) were the most concerned group about making mistakes related to English and teaching, participants teaching for 20-24 years ($\bar{x} = 1.51$) were the least concerned group, and teachers with an experience of 25+ years ($\bar{x} = 1.56$) followed them. In addition, the mean score for teachers who had been teaching for 10-14 years was 1.75. To conclude, while teachers with an experience of 0-4 or 5-9 years were the most

worried about teaching English as a foreign language, teachers with an experience of 20-24 years were the least worried group and followed by the ones who had been teaching for 25+ years.

Tenth, Kruskal Wallis test was conducted to reveal any variations in FLTAS Overall as well as in all the five subdimensions by facilities of institutions at which participant EFL instructors are employed. The results are given in Table 43.

Table 43. Results of Kruskal Wallis Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Facilities of Institution

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>FLTAS Overall</i>	<i>Facilities at Institution</i>	personal computers	116	114.48	.059	2	.97
		only common computers	91	112.25			
		no personal or common computers	19	113.47			
<i>Teaching a Particular Language Skill</i>	<i>Facilities at Institution</i>	personal computers	116	110.43	1.389	2	.49
		only common computers	91	114.13			
		no personal or common computers	19	129.24			
<i>Target Language Performance</i>	<i>Facilities at Institution</i>	personal computers	116	111.30	1.896	2	.38
		only common computers	91	112.26			
		no personal or common computers	19	132.87			
<i>Making Mistakes</i>	<i>Facilities at Institution</i>	personal computers	116	116.16	.409	2	.81
		only common computers	91	111.01			
		no personal or common computers	19	109.24			
<i>Being Compared to Fellow Teachers</i>	<i>Facilities at Institution</i>	personal computers	116	115.19	.340	2	.84
		only common computers	91	112.83			
		no personal or common computers	19	106.42			
<i>Using Native Language</i>	<i>Facilities at Institution</i>	personal computers	116	117.91	4.388	2	.11
		only common computers	91	113.96			
		no personal or common computers	19	84.37			

*p<.05

As can be seen in Table 43, there was not a statistically significant difference in participant EFL teachers' FLTA in relation to facilities at their institution (p=.97). Similar results were found for Factor 1 (p=.49), Factor 2 (p=.38), Factor 3 (p=.81), Factor 4 (p=.84), and Factor 5 (p=.11) as well.

Next, Kruskal Wallis test was implemented to reveal any variations in FLTAS Overall as well as in all the five subdimensions regarding the graduate programs. The results are shown in Table 44.

Table 44. Results of Kruskal Wallis Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Graduate Programs

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>FLTAS Overall</i>	<i>Graduate Programs</i>	English Language Teaching	130	113.32	.297	2	.86
		Other Language Departments	83	112.31			
		Other	13	122.88			
<i>Teaching a Particular Language Skill</i>	<i>Graduate Programs</i>	English Language Teaching	130	111.08	3.516	2	.17
		Other Language Departments	83	112.17			
		Other	13	146.15			
<i>Target Language Performance</i>	<i>Graduate Programs</i>	English Language Teaching	130	114.68	.235	2	.88
		Other Language Departments	83	110.96			
		Other	13	117.92			
<i>Making Mistakes</i>	<i>Graduate Programs</i>	English Language Teaching	130	115.59	.423	2	.80
		Other Language Departments	83	111.54			
		Other	13	105.15			
<i>Being Compared to Fellow Teachers</i>	<i>Graduate Programs</i>	English Language Teaching	130	111.22	.430	2	.80
		Other Language Departments	83	116.96			
		Other	13	114.19			
<i>Using Native Language</i>	<i>Graduate Programs</i>	English Language Teaching	130	118.43	2.787	2	.24
		Other Language Departments	83	109.45			
		Other	13	90.04			

*p<.05

It can be understood from Table 44 that the graduate programs of the participant teachers did not create a significant change in their FLTA ($p=.86$), anxiety about teaching a particular language skill ($p=.17$), target language performance ($p=.88$), making mistakes ($p=.80$), being compared to fellow teachers ($p=.80$), and using native language ($p=.24$). Although there was not a significant difference, graduates of other departments had the highest FLTA overall ($\bar{x}=122.88$) as well as anxiety for teaching a particular language skill ($\bar{x}=146.15$) and target language performance ($\bar{x}=117.92$). While graduates of English Language Teaching Department were the most anxious group about making mistakes ($\bar{x}=115.59$) and using their native language ($\bar{x}=118.43$), graduates of other language departments were worried about being compared to fellow teachers the most ($\bar{x}=116.96$).

Lastly, Kruskal Wallis test was implemented to reveal any variations in FLTAS Overall as well as in all the five subdimensions regarding last degree the participant teachers completed. The results are shown in Table 45 below.

Table 45. Results of Kruskal Wallis Test for FLTAS Overall, Factor 1, Factor 2, Factor 3, Factor 4, and Factor 5 Regarding Last Degree Completed

Scale	Variable	Groups	n	$\bar{x}$	X^2	df	p
<i>FLTAS Overall</i>	<i>Last Degree Completed</i>	Bachelor's degree	84	128.74	9.101	2	.01*
		Master's degree	124	107.31			
		Doctor of Philosophy	18	85.00			
<i>Teaching a Particular Language Skill</i>	<i>Last Degree Completed</i>	Bachelor's degree	84	125.24	6.402	2	.04*
		Master's degree	124	109.49			
		Doctor of Philosophy	18	86.31			
<i>Target Language Performance</i>	<i>Last Degree Completed</i>	Bachelor's degree	84	124.92	8.559	2	.01*
		Master's degree	124	111.02			
		Doctor of Philosophy	18	77.28			
<i>Making Mistakes</i>	<i>Last Degree Completed</i>	Bachelor's degree	84	125.77	6.024	2	.05
		Master's degree	124	108.58			
		Doctor of Philosophy	18	90.11			
<i>Being Compared to Fellow Teachers</i>	<i>Last Degree Completed</i>	Bachelor's degree	84	121.07	2.063	2	.35
		Master's degree	124	109.63			
		Doctor of Philosophy	18	104.83			
<i>Using Native Language</i>	<i>Last Degree Completed</i>	Bachelor's degree	84	124.30	3.769	2	.15
		Master's degree	124	106.65			
		Doctor of Philosophy	18	110.33			

*p<.05

As can be understood from Table 45, the EFL teachers' FLTA differed significantly in terms of their level of education ($p=.01$). Additionally, the analyses conducted with the factors of FLTAS, namely teaching a particular language skill ($p=.04$) and target language performance ($p=.01$) present similar results. However, there was not a statistically significant difference in Factor 3 ($p=.05$), Factor 4 ($p=.35$) and Factor 5 ($p=.15$) regarding last degree completed. Below are given the posthoc test results to understand which groups created the significant difference.

Table 46. Results of Tukey HSD for FLTAS Overall, Factor 1, and Factor 2 Regarding Last Degree Completed

Last Degree (I)	Last Degree (J)	<i>FLTAS Overall</i>			<i>Factor 1</i>			<i>Factor 2</i>		
		$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p	$\bar{x}$ (I-J)	SE	p
<i>Bachelor's Degree</i>	MD	.154	.074	.09	.138	.080	.20	.085	.072	.46
	PhD	.336	.136	.03*	.355	.147	.04*	.350	.132	.02*
<i>Master's Degree</i>	BD	-.154	.074	.09	-.138	.080	.20	-.085	.072	.46
	PhD	.181	.132	.35	.216	.143	.28	.264	.129	.10
<i>Doctor of</i>	BD	-.336	.136	.03*	-.355	.147	.04*	-.350	.132	.02*

<i>Philosophy</i>	MD	-.181	.132	.35	-.216	.143	.28	-.264	.129	.10
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*p<.05

As can be seen in Table 46, the Tukey HSD results show that the difference between BA graduates and PhD graduates was the source of the significant variation in FLTAS Overall ($p=.03$), Factor 1 ($p=.04$), and Factor 2 ($p=.02$) in relation to the last degree the teachers completed. To elaborate, FLTA of participants holding a bachelor's degree ($\bar{x}=1.81$) was higher than participants who had a Ph.D. ($\bar{x}=1.48$). Likewise, EFL instructors with a bachelor's degree ($\bar{x}=1.71$) were more anxious about teaching a particular language skill than the ones who held a Ph.D. ($\bar{x}=1.36$). In the same vein, teachers who held a bachelor's degree ($\bar{x}=1.52$) were more worried about their target language performance than the ones with a Ph.D. ($\bar{x}=1.17$).

5. DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

5.1 Discussion

This chapter displays the findings of the current study in comparison to available studies in the literature on technology integration self-efficacy beliefs and foreign language teaching anxiety among EFL instructors. First, the findings regarding the level of teachers' TISE are discussed. Next, to what extent certain demographic variables affect teachers' TISE is explained. Third, the results concerning the FLTA experienced by EFL instructors are reviewed. Following that, to what extent demographic variables determined for the current study influence EFL teachers' FLTA levels is discussed. Finally, the relationship between TISE beliefs and FLTA is explained.

5.1.1 TISE among EFL Instructors

The descriptive analyses showed that EFL instructors participating in the current study had high levels of technology integration self-efficacy. Similar results were observed in previous studies by Rigi (2015), Lailiyah and Cahyono (2017),

Birisci and Kul (2019), Dinçer (2020), Yeni Palabıyık (2013), Caner and Aydın (2021), Keser et al. (2015), and Şen and Yıldız Durak (2022). On the other hand, a few studies found that teachers had medium levels of TISE (Gomez et al., 2021; Mitchell, 2021; Yıldız Durak, 2021). The analysis of the factors of TISES further proved that EFL teachers believed in their capabilities and strategies to implement technology more when compared to overcoming external problems related to technology uses. They felt confident the most about utilizing technology in their lessons in line with the content of the lesson while they did not feel as confident in helping and motivating others and overcoming system constraints. Likewise, this finding was consistent with some studies in the related literature which concluded that although teachers felt competent to integrate technology into their teaching, they may have still felt hesitant to help others with technological tools as they felt less confident in self-efficacy skills requiring technical expertise (Caner & Aydın, 2021; Dinçer, 2020; Rigi, 2015). This finding could be defined as understandable as assisting others requires more than interest or experience in technology integration.

5.1.2 TISE and Demographic Variables

This study also aimed at uncovering any possible relationships between TISE and various demographic variables. Accordingly, analysis of the descriptive statistics highlighted that TISE of EFL teachers did not significantly vary in terms of gender. However, male teachers had slightly higher levels of self-efficacy than their female colleagues in subscales and the total scores of TISES. This finding was in agreement with Caner and Aydın's study (2021). Several studies only discussed the overall scores of teachers' technology integration self-efficacy. In line with the findings of the current study, studies by Lailiyah and Cahyono (2017), Keser et al. (2015), Şen and Yıldız Durak (2022) pointed out that male teachers had higher TISE than female teachers. The findings of Yeni Palabıyık (2013), on the other hand, contradicted the other studies. Accordingly, female teachers scored slightly higher than their male colleagues in her study. These results suggested that relevant studies in the literature could not reach a common conclusion, which necessitates further studies in the field.

Considering participant teachers' ages, a variation was observed in their TISE beliefs. Teachers who were 20-29 years old scored the highest in computer

technology capabilities and strategies as well as external influences of computer technology uses. As the participants got older, their TISE beliefs decreased among the participants of the current study. The meaningful difference in teachers' TISE levels stemmed from participants who were 50 and more years old. In accordance with the findings of this study, Lailiyah and Cahyono (2017) as well as Şen and Yıldız Durak (2022) came up with similar findings in their previous studies. As teachers who were 20-29 years old were mostly new graduates or novice teachers, it might have been easier for them to retrieve information regarding technology implementation from their undergraduate studies. More importantly, they might have had more opportunities to experiment with the most up-to-date technologies regarding education since the successful implementation of technology is accepted as an indispensable component of teacher education programs nowadays. Due to the above-mentioned reasons and requirements of the era we live in, instructors who were 20-29 years old could be called digital natives. On the other hand, teachers who were 50 and 50+ years old might have had fewer chances to keep up with new developments when compared to their younger colleagues as they were digital immigrants. Therefore, it is natural for them having felt less confident in their skills regarding the successful implementation of technology into their lessons.

TISE of EFL instructors also showed variance in terms of their teaching experience. Teachers with 25 and more years of experience were the group who had the lowest levels of TISE beliefs overall as well as scores in computer technology capabilities and strategies and external influences of computer technology uses. Conversely, participants who have been engaged in the profession for 0-4 years were the most confident group in terms of technology integration self-efficacy beliefs, and computer technology capabilities and strategies. Regarding external factors in technology integration, teachers with 5-9 years of experience were the most confident group. In line with the findings regarding age, although teachers gained more experience in teaching as years passed by, their self-efficacy tended to decrease. A similar tendency was realized in a few studies in the literature (Lailiyah & Cahyono, 2017; Şen & Yıldız Durak, 2022). In Lailiyah and Cahyono's research (2017) participants with experiences of 10 and 11-20 years scored higher when compared to teachers with more than 20 years of experience whereas in Şen and

Yıldız Durak (2022) teachers with an experience of 6-10 years had the highest scores and teachers with an experience of 25 years or more scored the lowest. This may have resulted from the fact that teachers with less experience in teaching tended to benefit from technology in their classes more as they were natural technology users. Teachers with experiences of 25 and more years may have developed their own strategies and techniques over the years, so they may not be eager to experiment with new tools or may not feel confident enough to implement technology due to their lack of knowledge and expertise. Despite the similarities in the previous literature, two studies contradicted the current study. While Yeni Palabıyık found that years of experience did not create a meaningful difference in teachers' TISE, Mitchell (2021) concluded that teachers with an experience of 1-4 years had the lowest levels of self-efficacy. In addition, participants who had more than 21 years of experience mostly had medium levels of self-efficacy rather than low. Therefore, it may be concluded that more studies need to be conducted to reach a consensus.

Next, the institution type, weekly teaching hours, and adopted system at their current institution played a crucial role in EFL teachers' TISE whereas current teaching conditions did not create a significant difference. First, EFL teachers employed at private universities had higher self-efficacy beliefs than their colleagues working at state universities. Likewise, Şen and Yıldız Durak's study (2022) concluded that when compared to teachers at public schools, English teachers employed at private institutions affiliated with the Ministry of National Education felt more confident about their abilities and strategies to employ technology in their instruction and felt more secure about overcoming external difficulties regarding technology integration such as helping the others with technology use and system constraints. Private institutions have been known to be better equipped with technological tools in Turkey. Additionally, teachers employed at private schools have been expected to actively benefit from them during their instruction as they have had access to technological tools and applications easily. Furthermore, most private institutions provide in-service training on several topics including technological tools and ask teachers to employ them in their classes. Therefore, thanks to these opportunities or requirements, teachers employed in private institutions may have developed better technology integration capabilities and

strategies and this may have been reflected in their answers. Next, this study also concluded that EFL teachers' TISE varied in terms of their teaching hours per week. EFL instructors teaching 13-20 hours were the group who felt less secure about their technology integration capabilities and strategies as well as external difficulties regarding technology integration compared to their colleagues teaching 0-12 and 21 and more hours. Although teachers with a weekly workload of 0-12 and 21 and more hours had relatively similar or close levels of TISE, EFL instructors teaching 13-20 hours did not feel as much competent to integrate technology into their lessons. Instructors who were engaged in teaching 0-12 hours per week might have had more time to prepare their lessons and had less workload. On the other hand, teachers who taught 21 and more hours weekly might have had a higher sense of achievement at the end of the week as well as more chances of trying out new technologies and mastering them. This may have led to a higher sense of TISE. In contrast, EFL instructors engaged in teaching 13-20 hours a week might have felt less certain about their capabilities regarding technology integration and coping with technology-related problems. Similar results were found in Şen and Yıldız Durak's study (2022). The researchers concluded that EFL teachers who worked 31 and more hours were the most confident group about technology integration whereas participants who had to teach 16-30 hours had the lowest self-efficacy beliefs. It is possible to suggest that having a heavier workload may have encouraged English teachers to employ technology more (Şen & Yıldız Durak, 2022) and hence resulted in a higher sense of self-efficacy. Third, this study has revealed that EFL instructors' TISE varied in relation to the adopted system at their workplace. As a common procedure at schools of foreign languages in Turkey, institutions adopt a modular system or follow a yearly program or term-based syllabus to deliver lessons. While the classes instructors teach may change in line with module exams within a modular system, teachers following a yearly or term-based program may teach the same classes throughout the year or semester. Accordingly, this study concluded that EFL instructors following a modular system felt the most confident about their technology integration capabilities and strategies as well as their capabilities to overcome external difficulties regarding technology integration. In contrast, instructors who taught English in line with a yearly program had the lowest level of TISE. Although

no previous study investigated TISE in relation to the adopted system at institutions, it is possible to comment that the findings of the current study might have stemmed from the differences between the previously mentioned adopted systems. EFL instructors might have better adapted to constantly changing teaching environments and their requirements in a modular system as each different class brought varieties and obligatory changes with them. As a result of this, EFL instructors may have developed a better sense of achievement and self-efficacy about technology integration as well since employed technologies may show variance in each level and class. Moreover, modular system is generally employed at private universities and participants of the current study who were employed at private universities had higher self-efficacy beliefs than their colleagues employed at state universities. This finding may partially explain why teachers working according to a modular system scored higher as well. Fourth, the study investigated whether the TISE of EFL instructors showed variance in relation to their current teaching conditions. No previous study has investigated this issue. Due to the COVID-19 pandemic, different ways of delivering lessons were adopted by various institutions during the 2021-2022 academic year. While some universities turned back to face-to-face education, some adopted a hybrid system as a precaution. Others followed new regulations and delivered the lessons both on online platforms and face-to-face whereas some schools preferred 100% online education. Accordingly, EFL instructors' TISE beliefs did not change in relation to the adopted system at EFL instructors' workplaces. However, it was observed that instructors engaged in three different types of delivering lessons- face-to-face, online, and hybrid- in the same semester were the most confident group of teachers about their technology integration competencies. This may have resulted from the requirement to adapt to different teaching environments all of which necessitate successful integration of technology. This obligation might have led to higher self-efficacy beliefs regarding technology integration among this specific group.

It has also been aimed at uncovering any possible relationships between TISE and the number of different levels EFL instructors had to teach, facilities in classrooms as well as facilities at their current workplaces. The study has shown that the number of different proficiency levels the instructors were responsible for

teaching did not lead to a difference in EFL teachers' TISE levels. However, the participants who were teaching only one level had the lowest TISE values. In terms of classroom facilities, participants were asked to answer whether they had access to smart boards in their classrooms. While no difference was found in EFL teachers' perceived computer technology capabilities and strategies in relation to classroom equipment, having a smart board led to an important difference in teachers' perceived competencies about overcoming external difficulties in technology integration such as system constraints, skeptical colleagues, and curricular goals when compared to teachers who did not have a chance to benefit from smart boards in their teaching. This may have stemmed from the fact that using a smart board provides good practice and requires problem-solution skills, understanding of and familiarity with the technology required to run smart boards when encountering a problem during use. Therefore, these capabilities may have been reflected in EFL teachers' replies. Regarding facilities at their workplaces, EFL instructors were asked whether they owned a personal computer or laptop provided by the institution or if they had access to public computers in common areas at school. The mean scores indicated that not having access to any personal or common computers at their workplace created an important difference in EFL teachers' computer technology capabilities and strategies and TISE overall. While the group owning a personal computer which was provided by their workplace had the highest perceived self-efficacy beliefs for technology integration, participants with no access to any computers at their workplace did not feel as much confident about their technology integration skills. Having personal or at least common computers at the workplace helps teachers to experiment with the newest technologies while preparing their lessons. It provides time and space for teachers to try out and decide on technologies to integrate into their lessons. On the other hand, having no access to any technological device in the teachers' room or in EFL teachers' offices may have discouraged teachers from benefiting from technology in their lessons or may have hindered their potential, which in turn might have affected their perceived self-efficacy beliefs. Since the existing literature did not investigate TISE in relation to the above-mentioned variables, it was not possible to make comparisons.

As for graduate programs and the highest educational attainments of EFL instructors, it was seen that being a graduate of ELT, other language-related departments, or non-language-related programs as well as holding a bachelor's, master's degree or doctorate did not create a statistically significant change in EFL teachers' perceived TISE. Yet, it would be worth mentioning that graduates of non-language-related programs were the group feeling the least confident about their computer technology capabilities and strategies as well as external influences of computer technology uses. Likewise, EFL teachers' educational level did not lead to a meaningful difference in their TISE level as the findings of the current study suggested. Lailiyah and Cahyono (2017) came up with similar results. Even though the difference is not significant, participants of the current study holding a bachelor's degree felt less confident about their computer technology capabilities and strategies besides external influences of computer technology use compared to EFL instructors holding a master's degree or doctor of philosophy. Although there are a few studies on this issue, similar results were found by Şen and Yıldız Durak (2022). Şen and Yıldız Durak (2022) concluded that teachers with post-graduate degrees felt more confident about their TISE than teachers with a graduate degree. Teachers with a postgraduate degree might have had more chances to improve their knowledge in the field, follow new innovations, and combine their knowledge with teaching experiences compared to teachers with a graduate degree. Therefore, they might have been found to be more confident about technology integration.

Lastly, EFL instructors were asked whether they had any training on technology integration at their workplaces as well as their opinions about the efficiency of the training. The findings of the study presented that EFL teachers who had a chance to get training on technology integration felt more confident about their skills and capabilities to implement technology and more secure about overcoming external difficulties and helping learners about technology compared to teachers who did not get any training. When EFL instructors were asked to grade the training they got at their workplace, they chose between the options "*not beneficial/effective at all*", "*quite beneficial/effective*", "*mostly beneficial/effective*", and "*very beneficial/effective*". The findings showed that while teachers who marked the training as ineffective were the least confident group about technology integration, the

participants stating that the training was very effective constituted the most confident group of teachers. Surprisingly, participants who defined the training quite beneficial had higher self-efficacy than EFL instructors who found the training mostly beneficial. This might have stemmed from a misconception of the phrases “quite” and “mostly”. Still, the study concluded that getting a(n) beneficial/effective training on technology integration helped EFL instructors feel significantly more confident about their technology integration skills and capabilities. There has been no descriptive study on this issue in the related literature; however, findings from previous studies have highlighted some common issues regarding technology integration in the field. Prior knowledge on how to use technological tools (Rigi, 2015; Yeni Palabıyık, 2013) was mentioned as one of the factors which positively affect teachers’ technology integration whereas lack of knowledge and time to learn and practice innovations (Mitchell, 2021) and inadequate training (Aljohani, 2022) were marked as barriers to incorporate technology into their lessons by teachers. Regarding professional development circumstances of technology integration, participant teachers in Mitchell’s study (2021) emphasized that the training should be more targeted, specialized, and there should be follow-up activities as well. In line with that, teachers taking part in Yeni Palabıyık’s study (2013) highlighted the importance of creating opportunities to try out new technologies or tools and sparing more time on practical issues rather than focusing on theory in such training. Again, teachers mentioned their need of an expert or a technology coach to consult to and get help with technological issues when needed (Mitchell, 2021; Yeni Palabıyık, 2013). It is of utmost importance that educators are supported by their workplaces as integrating technology into classes requires more than equipping classes with the necessary devices. While some of the teachers are digital natives already engaged in technology and trained at higher education institutions accordingly, it should be taken into consideration that most teachers do not feel much comfortable about making use of technology in class and need guidance and expert help to internalize it. Moreover, the needs of teachers regarding technology integration are constantly changing and evolving. Therefore, it is essential to organize professional development programs or pieces of training addressing teachers’ TISE and technology competency (Gomez et al., 2021).

5.1.3 FLTA among EFL Instructors

The descriptive analyses showed that EFL instructors participating in the current study experienced a low level of FLTA. It was revealed that EFL instructors were concerned about using Turkish in the classroom the most whereas they were worried about their performance of English the least. This finding also agreed with Eren's study (2020). The participants did not feel comfortable when they used Turkish in class besides regretting having used Turkish during the lesson afterward. This was also consistent with Öztürk's study (2016). However, making mistakes, fear of being compared to fellow teachers, teaching a particular language, and target language performance did not make EFL instructors worried as much. Likewise, similar conclusions were drawn from earlier studies. In the light of previous studies, it was determined that English teachers experienced from low (Aydın & Uştuk, 2020b; Eren, 2020; Kobul & Saraçoğlu, 2020; Merç, 2015; Rani et al., 2022) to moderate (Dişli, 2020; Güngör & Yaylı, 2012; Kesen & Aydın, 2014; Öztürk, 2016) levels of FLTA.

5.1.4 FLTA and Demographic Variables

The current study also aimed at highlighting any possible relationships between FLTA and certain demographic variables. Accordingly, a meaningful difference was observed between female and male EFL instructors in fear of being compared to fellow teachers. Female teachers were more concerned about being compared to other teachers in terms of their teaching methods and English proficiency. On the other hand, gender did not lead to a meaningful difference in FLTA overall, teaching a particular language skill, target language performance, fear of making mistakes, or using students' L1. Although there was not a significant difference, female participants were slightly more anxious except for teaching a specific language skill. In accordance with this study, Eren (2020) concluded that female teachers experienced a significantly higher level of FLTA than male EFL instructors. However, this finding was inconsistent with studies by Güngör and Yaylı (2012), Kesen and Aydın (2014), Öztürk (2016), Dişli (2020), Kobul and Saraçoğlu (2020) which concluded that there was not a remarkable difference in FLTA levels

between male and female participants. Additionally, Aydın and Uştuk's study (2020b) contradicted other studies and concluded that male teachers were more worried than fellow female teachers in terms of their perceptions of target language proficiency, time management, fear of negative evaluation, and inexperience. Furthermore, in Merç's study (2015), female prospective teachers were found to be more anxious overall, about their language proficiency, fear of what others think, pupils, and learner management. As also discussed in the literature review, FLTA is a relatively new but important issue investigated by researchers among prospective and in-service language teachers via descriptive, qualitative, or mixed-method studies. These studies prove that the sources of anxiety for pre-service and in-service teachers might be different. Similarly, the differing findings in FLTA levels in relation to gender within the related literature are quite expected as the studies are conducted with different tools, with the participation of both pre-service and in-service teachers. Therefore, it is essential to investigate FLTA further to gain a deeper understanding of the notion.

Second, this study showed that EFL instructors' age and years of teaching experience led to a difference in their FLTA overall and their concerns related to teaching a specific language skill, making mistakes, and target language performance. Teachers between 20-29 were the most worried group, whereas EFL instructors who were 50 and above experienced FLTA the least. Teachers between 20-29 were concerned about making mistakes the most, specifically grammar and spelling mistakes. Aydın and Uştuk (2020b) also came up with similar results and concluded that younger teachers felt more worried than older teachers regarding their English proficiency and fear of making mistakes. This study also displayed that although there was not a significant difference between instructors who were 20-29 and 30-39, the anxiety about teaching a particular language skill and target language performance decreased as EFL instructors of the current study got older. The findings of the study were consistent with other studies in the literature concluding that as teachers got older, they experienced less anxiety (Eren, 2020; Kobul & Saraçoğlu, 2020). Likewise, EFL instructors with a teaching experience of 0-4 years experienced FLTA the most, and they were more concerned about making mistakes when compared to other groups. Teachers with an experience of 5-9 years, on the

other hand, were confirmed to have the highest level of anxiety about teaching a particular language skill and their English performance. It is possible to relate this difference to the awareness EFL instructors gained after teaching for a certain period of time. As years passed by with a teaching experience of 5-9 years, EFL instructors may have had more chances to teach different skills separately or in an integrated way and might have gained an awareness of how difficult to teach and improve some language skills. Similarly, after teaching students at certain proficiency levels with differing needs, they might have questioned their capabilities as well as their language and linguistic competencies. EFL instructors with 20-24 years of experience had the lowest anxiety levels regarding teaching a particular language skill, target language performance, making mistakes, being compared to fellow teachers, and using their native language as well as FLTA overall. It was seen that this group was followed by teachers with an experience of 25 years and more. Even though it was not statistically meaningful, a small increase was observed in the anxiety levels of teachers with an experience of 25 or more years. However, it was possible to conclude that novice teachers were more anxious than more experienced teachers overall. Similar results were reached in the related literature (Dişli, 2020; Eren, 2020; Kesen & Aydın, 2014; Kobul & Saraçoğlu, 2020; Öztürk, 2016).

As for graduate programs of EFL instructors and the highest educational attainments, it was seen that being a graduate of ELT, other language-related departments, or non-language-related programs did not lead to a meaningful difference in EFL teachers' FLTA. However, it was observed that the last degree participants completed created a significant change. To clarify, it was seen that holding a doctorate created a statistically significant change in EFL teachers' foreign language teaching anxiety. Graduates of a Ph.D. were the group suffering from FLTA the least as well as anxiety regarding teaching a particular language skill, target language performance, and making mistakes, whereas instructors with a bachelor's degree had the highest level of FLTA. However, this finding was inconsistent with Eren's (2020) and Aydın and Uştuk's studies (2020b) which concluded FLTA did not differ in relation to graduation degrees, namely BA, MA, and Ph.D. Öztürk (2016) also compared teachers with a BA and MA degree and found no difference between the groups. The findings of the current study regarding

the last degree completed could be related to age and years of experience as well. Naturally, EFL teachers do their PhDs after their BA and MA degrees while they also continue to teach English concurrently. As highlighted before, FLTA decreases as EFL instructors get older and gain experience in teaching. Therefore, the relevant findings could be partly attributed to other demographic variables as well as knowledge and experience gained via post-graduate education programs. As for graduate programs of EFL instructors, FLTA did not vary significantly. Still, graduates of non-language-related programs experienced a higher FLTA overall and were the most anxious group about teaching a particular language skill, and target language performance. These participants might have felt insecure about their skills and capabilities in teaching English from time to time since they had expertise in different departments. On the other hand, graduates of ELT were the most worried group about making mistakes and using Turkish in class. Graduates of ELT departments might be more sensitive to and alert about what is happening in classrooms as a result of their comprehensive education at their faculties. Hence, this might have been reflected in this study as well. Lastly, graduates of other language departments suffered from anxiety in relation to being compared to other teachers the most. Previous studies in the literature did not include a category for non-language programs, but Eren (2020) compared graduates of ELT and other English language departments. Accordingly, the findings of the study confirmed that ELT graduates suffered from significantly higher levels of FLTA. The findings of Dişli (2020) contradicted these results and she concluded that graduates of English Language and Literature program were significantly the most anxious group among other language departments. Furthermore, Kobul and Saraçoğlu (2020) found no significant difference between ELT graduates and ELL graduates in terms of FLTA. Therefore, it is possible to infer that available studies could not reach a common judgment regarding EFL teachers' graduation programs and FLTA.

This study has also indicated that the level of FLTA EFL instructors experienced did not differ in terms of the institution type they were employed at. Teachers working at private universities seemed to be more worried about their English performance, making mistakes, using Turkish in class, and FLTAS overall whereas teachers working at state universities had higher levels of anxiety regarding

teaching a particular language skill and being compared to fellow teachers. No previous study investigated FLTA in relation to university types participant teachers are employed at; however, Dişli (2020) investigated FLTA among EFL teachers working at different types of high schools, whereas Aydın and Uştuk (2020b) compared FLTA of teachers employed at public and state schools as well as teachers teaching different grades such as primary, secondary, high school, university. Dişli (2020) concluded that Qualified Anatolian High School EFL teachers were the most worried group whereas Religious Vocational High School teachers were the least anxious group. Likewise, Aydın and Uştuk (2020b) found that high school teachers were the most worried group in terms of fear of making mistakes, and teachers employed at public schools felt more anxious than the participants working at private schools about the use of target language in class, perceived unpreparedness for class, and time management issues. Apparently, more studies are needed to investigate FLTA at different school types to further understand the issue.

Next, this study concluded that the FLTA of EFL instructors did not change in relation to the current teaching conditions of the participants and the adopted system at their workplace. Even though there was not a meaningful difference, teachers conducting both face-to-face and hybrid lessons separately were found to be more concerned about teaching a particular language skill, target language performance, and being compared to fellow teachers, which was calculated as the highest mean score overall. During the outbreak of the COVID-19 pandemic, everything was quite chaotic including organizing and managing education. Therefore, there was a lot of pressure on teachers to adapt and successfully manage these new conditions, which might partially explain why EFL instructors suffered from fear of being compared to fellow teachers. Furthermore, it was also seen that EFL instructors teaching face-to-face and online lessons had higher foreign language teaching anxiety overall and were worried about using Turkish in class. Since the existing literature did not investigate FLTA in relation to different teaching conditions, it was not possible to make comparisons. In terms of the adopted system at their workplace, EFL teachers' FLTA did not vary. It was seen that EFL instructors teaching in line with a modular system experienced higher levels of FLTA overall, fear of target language performance, and making mistakes, whereas

instructors teaching according to a yearly program had higher levels of anxiety regarding being compared to fellow teachers and using Turkish in class. Lastly, participants following a term-based program were the most anxious group about teaching a particular language skill. The previous studies in the field did not investigate FLTA in relation to the variable of adopted systems at institutions.

It has also been aimed at uncovering any possible relationships between FLTA and the number of different levels EFL instructors had to teach and teaching hours per week. First, it was concluded that the variety of levels EFL teachers had to teach played a crucial role in EFL teachers' FLTA. Participants who were teaching 4 and more different levels suffered from FLTA the most and had higher levels of anxiety about target language performance, being compared to other English teachers, and making mistakes. EFL instructors teaching students with the same proficiency level were the least worried teachers. It is possible to relate this difference to the need to adapt to several different teaching environments, alter the language used accordingly, and plan level-appropriate lessons, which in turn may cause cognitive load and stress for EFL teachers. In addition, as it requires a lot of effort and time to prepare for different groups, teachers will have less time to relax, rest, and socialize which may increase their anxiety levels. The amount of prior research on this topic is quite small. Eren (2020) investigated FLTA in relation to proficiency levels; however, the researcher grouped participants as instructors teaching lower levels, higher levels, and all levels. Accordingly, Eren (2020) found that there was not a meaningful difference among the participants. On the other hand, in Dişli's (2020) mixed method study, teaching low-level learners was mentioned as one of the anxiety-provoking factors by some participants. Hence, more studies on the issue may help comprehend the issue further and better. With respect to teaching hours per week, there was a meaningful difference only in the anxiety of using the native language. Accordingly, EFL instructors teaching 0-12 hours weekly had a significantly higher level of anxiety regarding using Turkish in class than instructors engaged in teaching 13-20 hours per week. It may have stemmed from the lack of exposure to and use of the target language as those teachers had fewer opportunities to teach and speak English. This may have led them to switch to Turkish from time to time, which might have triggered their anxiety regarding using the native

language. Although not significant, EFL instructors having a teaching load of 21 and more were found to experience the highest FLTA overall, fear of target language performance, and making mistakes. There were not any studies investigating FLTA and its relation to weekly workload; hence, it was not possible to draw conclusions.

Apart from the variables mentioned above, this study has also indicated that the level of FLTA EFL instructors experienced did not differ in terms of the facilities at their workplaces and the facilities of language classrooms. Even though there was no significant difference, EFL instructors who did not have access to personal or common computers at their workplaces had higher anxiety levels regarding teaching a particular language skill and target language performance compared to teachers who had access to personal or common computers at their institutions. Next, EFL teachers were asked if they had smartboards in their language classrooms at schools. Accordingly, it was found that although there was not a significant difference, EFL instructors who had access to smartboards in the class had higher FLTA overall and relatively higher levels of concern about teaching a particular language skill, English performance, and making mistakes. This might have resulted from the difficulty EFL instructors may have faced while using and managing smartboards. Not every teacher has a chance to experiment with smartboards and gain experience as not all classrooms include one. Therefore, in addition to the anxiety and stress of teaching, controlling smartboard technology may have put an extra burden on teachers' shoulders and may have increased their anxiety.

Lastly, FLTA was investigated in relation to any training EFL instructors got on technology integration at their workplaces. Accordingly, the findings of the study demonstrated that EFL teachers who did not have a chance to get training on technology integration felt slightly more anxious about teaching a particular language skill, target language performance, making mistakes, being compared to fellow teachers, and using Turkish as well as having a higher level of FLTA. However, these differences were not statistically meaningful. Further, EFL instructors were asked how they would evaluate the training they got on technology integration. Foreign language teaching anxiety of EFL instructors significantly varied in relation to the participants' opinions about the effectiveness of the training. While teachers who thought the training was not effective at all had the highest level of

FLTA and were the most concerned group about teaching a particular language skill, English performance and being compared to fellow teachers, participants believing that the training they got was very effective were found to be the least concerned group. The data of the study were compiled during the spring semester of the 2021-2022 academic year when EFL instructors had to conduct their lessons online, both online and face-to-face or hybrid, which required expertise in some platforms to deliver lessons and observe and manage learning activities on them. As not every teacher was comfortable with these new regulations and was not confident with the use of technology, the training provided by the institutions was of great importance to support the instructors. Additionally, taking part in projects requiring use of technology, experimenting with new ideas from these projects, and having a chance to discuss with peers are mentioned as important sources of TISE by teachers (Al-Awidi & Alghazo, 2012), whereas inadequate training was found as one of the factors having an impact on teachers' perceptions of TISE (Aljohani, 2022). Therefore, this finding could be related to the success and failure of training provided by the workplaces of participants.

5.1.5 TISE and FLTA

This study also aimed at uncovering any relationship between TISE and FLTA experienced by participant EFL instructors. The findings of the data revealed that there was a low-level negative relationship between EFL instructors' technology integration self-efficacy beliefs and foreign language teaching anxiety. If teachers had lower levels of TISE, they suffered from FLTA more. To state differently, EFL instructors who experienced lower levels of FLTA were found to have higher levels of perceived TISE. Similar relationships were observed between subdimensions of the scales except for using the native language. The findings revealed that the lower self-efficacy levels instructors had about overcoming external difficulties related to technology use, the more anxious they felt about teaching a particular language skill, especially about which they felt incompetent. Similarly, when teachers felt insecure about their computer technology capabilities and strategies, they felt more worried about making mistakes and their language performance. Although the correlation value was low, EFL instructors who had a low level of perceived TISE felt more

anxious about being compared to other teachers. However, using the native language did not vary according to EFL teachers' TISE. No previous studies in the related literature investigated the relationship between TISE and FLTA before. Yet, a few studies were conducted about TSE and FLTA, and it was concluded that there was a small to medium negative correlation between the concepts (Eren, 2020; Güngör & Yaylı, 2012; Merç, 2015). Bandura (1997) also highlighted that self-efficacy and anxiety were negatively correlated. Additionally, he emphasized that since technologies evolve rapidly, it requires specific types of teacher efficacy; therefore; it is of utmost importance to upgrade teachers' knowledge and skills (Bandura, 1997). We call what Bandura (1997) mentioned technology integration self-efficacy beliefs years ago. Even though teachers may aspire to adapt to new technologies, it may require more than effort such as more time to experiment with new technologies, support from experts, and focused training on specific technologies. Heslin and Klehe (2007) also point out that when a person feels inefficient and incompetent to overcome a difficulty, the anxiety level increases. In line with these, the participants of the current study may have felt insecure about their capabilities and strategies to integrate technology or teach online as well as overcoming external difficulties regarding the use of technology, which may have led them to feel more anxious about teaching a particular language skill, making mistakes, being compared to other teachers, and their English performance. Furthermore, as they felt overwhelmed by anxiety they experienced, their TISE might have been curtailed to some extent (Schunk & DiBenedetto, 2016). The participants of the current study had to adapt to different teaching environments and make use of various applications and technologies to conduct their lessons and observe and assess their learners as a result of the pandemic. Apart from that, employing technology in language classrooms is an indispensable part of education to provide a more learner-centered classroom environment regardless of the pandemic. Therefore, it is also possible to comment that problems resulting from the struggle for successful implementation of technology in classrooms might be a relatively new source of FLTA for EFL teachers. Technical concerns were mentioned as one of the factors leading prospective teachers to anxiety (Aydın, 2016). Similarly, another study listed fear of technical concerns as one of the demotivating factors deterring EFL teachers from

utilizing technology in class (Al-Awidi & Alghazo, 2012). Additionally, the misuse of technology by students was revealed as one of the factors affecting FLTA (Dişli, 2020). In light of the findings of the current study and what related literature suggests, the use of technology in language classrooms may be investigated in relation to foreign language teaching anxiety further.

5.2 Conclusion

This study aimed to determine EFL instructors' perceived technology integration self-efficacy and foreign language teaching anxiety as well as revealing any possible relation between these variables. The findings allow for the following inferences. First, EFL instructors had a high level of TISE and experienced a low level of FLTA. Second, participant EFL instructors' TISE beliefs and FLTA were negatively correlated at a low level, meaning they suffered less from foreign language teaching anxiety when they had higher self-efficacy for technology integration. Next, several factors contributed to EFL instructors' TISE: institution type, training on technology integration, the effectiveness of training, teaching hours per week, adopted system at the workplace, age, teaching experience, and facilities at the workplace. Finally, there were factors affecting EFL instructors' FLTA: the effectiveness of training on technology integration, the variety of levels instructors teach, age, teaching experience, and last degree completed.

5.3 Practical Recommendations

Considering the current study's findings and related literature, some practical recommendations can be made for teachers, policymakers, and further research.

5.3.1 Recommendations for Teachers

First, some practical recommendations are made for teachers. The findings of the study highlighted that when teachers had lower TISE, they suffered from FLTA more. Therefore, it is essential to build higher self-efficacy for technology integration to avoid foreign language teaching anxiety problems related to technology. With reference to that, teachers can be recommended to benefit from free webinars focusing on different ways of integrating technology into classrooms. Second, they

can spare some time to experiment with technologies they think would be beneficial to their students. While investigating certain technological tools, teachers can be advised to get help from videos or tutorials shot by educators or experts to familiarize teachers and students with these technologies. Next, they can pursue in-service training opportunities on technology offered at their workplace or at other schools in their city. If there are no such opportunities at their workplaces, teachers can be recommended to raise awareness about common problems experienced by teachers regarding employing technology and request seminars or workshops from their school management. Furthermore, EFL instructors can be advised to benefit from the experiences of their colleagues who have some practice with technological tools and feel confident about helping others as well. Moreover, teachers can be advised to organize workshops or presentations on certain tools to support their colleagues with a practical perspective.

5.3.2 Recommendations for Policy Makers

Based on the above-mentioned results, it is advised that initial teacher education programs should offer not only theoretical but also practical courses to prospective EFL teachers to improve their TPACK and TISE. As studies in the previous literature also revealed, pre-service teachers need to observe role models and have opportunities to practice. Furthermore, difficulty in accessing resources might be a deterrent for pre-service teachers (Şimşek & Yazar, 2019). Therefore, it is crucial that institutions should have the necessary infrastructure and student teachers should be given chances to try out certain educational technologies in their courses, collaborate with their classmates, and improve their problem-solving skills regarding technology integration.

Besides higher education institutions, each school management can also take action to minimize the effect of problems related to technology integration. Interviews conducted with in-service teachers highlighted the importance of targeted and specialized professional development activities regarding technology integration and follow-up activities (Mitchell, 2021). School administrators and teacher development units of institutions should organize practical professional development events to support and train in-service EFL teachers on technologies employed in their

local contexts. Additionally, teachers should be able to consult and get help from an expert afterward when needed. As mentioned in the discussion section, younger EFL instructors have higher TISE beliefs than their older colleagues. Therefore, it is suggested that school administrators create a school environment supporting collegiality (Mitchell, 2021) and encourage younger teachers to organize workshops and share their knowledge and experience with their colleagues on certain technologies. Furthermore, school management should provide the necessary technology infrastructure so that EFL teachers have the tools to prepare their lessons to integrate technology properly and successfully. Besides, it is also of utmost importance that school management enables teachers to take part in professional development activities by organizing their schedules accordingly.

As the findings of the current study and studies in the previous literature show, younger teachers or teachers with limited experience tend to suffer from FLTA more. To decrease the anxiety level of younger teachers, initial teacher education programs should offer more occasions to teach in real classrooms. One recommendation could be to assign teaching practicum in the third year of initial teacher education program rather than the fourth year.

School management could also take action to avoid problems stemming from foreign language teaching anxiety. Special orientation programs could be designed for novice or less experienced teachers at their workplaces when they first start teaching. Orientation programs might be great opportunities to work collaboratively with supervisors and other colleagues and adjust to the teaching environment as well as organizational culture. Each EFL teacher can be assigned supervisors who observe their lessons, give feedback on teacher's practices, and support them when needed. Furthermore, administrators should also pay extra attention to the variety of different proficiency levels or courses instructors have to teach to decrease the anxiety levels of in-service teachers while they prepare schedules. Workload should be distributed fairly among teachers to avoid circumstances that may cause anxiety. Rotation among EFL teachers could be another solution during the preparation of schedules and level assignments.

5.3.3 Recommendations for Further Research

This study has focused on technology integration self-efficacy beliefs and foreign language teaching anxiety among EFL instructors working at tertiary level institutions in İstanbul province. New studies with more EFL instructors can be conducted. Moreover, studies conducted with EFL teachers employed at K-12 schools might present important results. The impact of school type on TISE and FLTA can be investigated and school types can be compared in relation to TISE beliefs and FLTA. In addition, this study was quantitative in nature; hence, mixed-method studies might bring a deeper insight into the recent sources and impacts of both TISE and FLTA. Furthermore, when a mixed-method study is conducted, the participant teachers may have a chance to express their points of view better, from which again new research topics may flourish. Next, to make certain conclusions about the role of certain demographic variables, such as gender and graduation programs, in TISE and FLTA, further research is necessary to clarify those contributing factors. During the data collection process of the current study, native EFL instructors were also invited to participate in the study; however, the study did not compare native and non-native teachers' perceived FLTA. Another study can be conducted to compare these two groups. Furthermore, the employed scale was designed for Turkish EFL teachers in the first place. As the sources of anxiety might be different for native teachers, a qualitative study can be conducted with an aim of forming a scale to measure the FLTA of native EFL teachers working in Turkey.

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Appendices

Appendix A – Consent Form for TISES

From: ZERRİN GÜRKAYA DİNDAR <...>
Sent: Thursday, February 17, 2022 9:08 AM
To: Ling Wang <...>
Subject: Permission to use Self-efficacy for Technology Integration Scale

NSU Security WARNING: This is an external email. Do not click links or open attachments unless you recognize the sender and know that the content is safe.

Dear Professor Wang,

I'm an MA student in English Language Education department of Istanbul Medeniyet University. I'd kindly ask for your permission to use the scale you developed with Peggy A. Ertmer and Timothy J. Newby (Computer Technology Integration Survey) in my master thesis.

Thanks in advance.

Kind Regards,

--
 Inst. Zerrin GÜRKAYA DİNDAR
 ISTANBUL UNIVERSITY
 SCHOOL OF FOREIGN LANGUAGES

← Ling Wang <...> 17 Şub 2022 19:28 ☆ ↶ ⋮

Alicir: ben ▾

İngilizce ▾ > Türkçe ▾ İletiyi çevir İngilizce için kapat x

Zerrin,

Yes, you may use the survey in your Master's thesis.

All the best,

Ling

Ling Wang
 Professor
 College of Computing and Engineering
 Office (954) 262-2020

NSU Florida

Appendix B – Consent form for FLTAS

Ynt: Permission to use Foreign Language Teaching Anxiety Scale (FLTAS)

Harici Medeniyet Üniversitesi-ELT x

← Hülya İPEK < > 17 Şub 2022 Per 17:35

Alici: ben ▾

İngilizce ▾ > Türkçe ▾ İletiyi çevir İngilizce için kapat

Dear Colleague Zerrin GÜRKAYA DİNDAR,

I am glad you are interested in foreign language teaching anxiety and grant you the permission to use the FLTAS.

Best Regards,

Dr. Öğr. Üyesi Hülya İpek
Anadolu Üniversitesi Eğitim Fakültesi
İngilizce Öğretmenliği

Asst. Prof. Dr. Hulya Ipek
Anadolu University
Education Faculty
English Language Teaching Department

← Gamze EREN < > 17 Şub 2022 Per 19:21 ☆ ←

Alici: ben ▾

İngilizce ▾ > Türkçe ▾ İletiyi çevir İngilizce için kapat

Dear Colleague,

I wish you the best with your MA studies. You may surely use the scale for your thesis.

Best regards,
Gamze Eren

ZERRİN GÜRKAYA DİNDAR < > şunları yazdı (17 Şub 2022 17:36):

Dear colleague,

I'm an English Instructor at Istanbul University. Currently, I'm working on my master thesis which is about technology integration self-efficacy beliefs and foreign language teaching anxiety. May I employ the adapted version of FLTAS (İpek,2006) you developed during your MA studies in my study with your permission? I have also requested Dr.İpek's permission.

Thanks in advance.

Kind Regards,

Ins. Zerrin GÜRKAYA DİNDAR

Appendix C – Background Questionnaire

An Investigation into EFL Instructors' Technology Integration Self-Efficacy Beliefs and Foreign Language Teaching Anxiety

(Yabancı Dil Olarak İngilizce Öğreten Öğretmenlerin Teknoloji Entegrasyonu Öz Yeterlilik İnançları ve Yabancı Dil Öğretme Kaygıları Üzerine Bir Araştırma)

Dear participant,

I'm conducting a study for my master thesis under the consultancy of Dr. Ferdane Denkci Akkaş in the English Language Education MA Program at the Institute of Graduate Studies of Istanbul Medeniyet University.

Within the scope of this study, EFL Instructors' technology integration self-efficacy beliefs and foreign language teaching anxiety levels will be examined, and the relationships between the two variables, if any, will be uncovered.

You are kindly invited to participate in this research and complete the following survey. You are not expected to share any information revealing your identity. The answers you provide will remain anonymous and will be used for the aims of this research and for publication only. Your participation in this study is voluntary, and you have the right to stop at any time while completing the survey.

The survey consists of a Background Questionnaire, Technology Integration Self-Efficacy Scale, and Foreign Language Teaching Anxiety Scale. It is of utmost importance that you answer each question sincerely. It is estimated that completing the survey will take 10-15 minutes.

Thank you in advance for your participation. Your answers are precious for the present research. In case of any questions or concerns, you may contact the researcher at

ferdane.denkci@istm.edu.tr

☐ I accept that I'm participating in this research voluntarily.

Section 1: Background Questionnaire

Please answer the questions below by choosing the most suitable option or writing short answers.

1. Age: _____

2. Gender:

☐ Male ☐ I prefer not to mention.
☐ Female

3. Currently working at a:

☐ state university
☐ private university

4. How long have you been working as an English teacher? : _____ (If possible, please state in years)

5. Current teaching conditions:

- ☐ I'm teaching face-to-face (The teacher and students are in their regular classroom at school).
- ☐ I'm teaching online (The teacher and students attend the class online).
- ☐ I'm teaching hybrid lessons (While some students connect to the class online, the teacher and other students attend the lesson in their regular classroom at school).
- ☐ I'm teaching both face-to-face and online.
- ☐ I'm teaching both face-to-face and hybrid lessons.
- ☐ I'm teaching both online and hybrid lessons.
- ☐ I'm teaching face-to-face, online and also hybrid lessons.

6. Teaching hours per week: _____**7. Which proficiency level have you taught predominantly in the last academic year? (If you teach different levels for equal hours, you may check more than one box.)**

- ☐ Beginner
- ☐ Elementary
- ☐ Pre-intermediate
- ☐ Intermediate
- ☐ Upper-intermediate
- ☐ Advanced

8. Which system is adopted at your institution?

- ☐ We adopt a modular system (*We might teach different levels and classes throughout the educational year as students' classes change as a result of module exams*).
- ☐ Our system is based on a yearly program/calendar (*We teach the same classes and students throughout the educational year according to a yearly syllabus*).
- ☐ I teach according to a term-based syllabus. The lessons I deliver change each semester.
- ☐ Other: _____

9. I hold a bachelor's degree in _____.

- ☐ English Language Teaching
- ☐ Literature /Linguistics / Translation and Interpreting
- ☐ Other: _____

10. Last degree completed:

- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Doctor of Philosophy

11. Does your current institution provide any training on technology integration?

- ☐ Yes
- ☐ No

12. If your answer to the previous question is yes, state how beneficial/effective you find that training.

- ☐ Not beneficial/effective at all
- ☐ Quite beneficial /effective

- ☐ Mostly beneficial /effective
- ☐ Very beneficial /effective

13. Facilities of your current institution:

- ☐ I have a personal computer and/or tablet provided by the institution.
- ☐ The institution provides common desktop computers/ laptop computers/ tablets for all teachers to use in common areas (e.g., teachers' room, computer lab, etc.)
- ☐ The institution doesn't provide any technological device (e.g., laptop computer, desktop computer, tablet) which teachers can use to prepare their lessons.

14. Facilities of the language classrooms at your current institution (You can check more than one box):

- ☐ internet connection
- ☐ smart board
- ☐ desktop computer / laptop computer
- ☐ projector
- ☐ loud speakers
- ☐ a fixed camera system

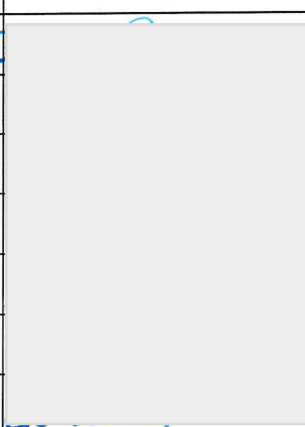
Other: _____

Appendix D – Ethics Committee Approval

 İSTANBUL MEDENİYET ÜNİVERSİTESİ	T.C. İSTANBUL MEDENİYET ÜNİVERSİTESİ EĞİTİM BİLİMLERİ ETİK KURULU KARARI
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Tarihi 04/04/2022	Sayısı 2022/04-05
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ARAŞTIRMA BAŞLIĞI	Yabancı Dil Olarak İngilizce Öğreten Öğretmenlerin Teknoloji Entegrasyonu Öz Yeterlilik İnançları ve Yabancı Dil Öğretme Kaygıları Üzerine Bir Araştırma
ARAŞTIRMANIN TÜRÜ	Nicel
ARAŞTIRMACI(LAR)	Zerrin Gürkaya Dindar
KARAR	Etik açıdan uygundur.

Görevi	Kurul Üyeleri	İmza
Başkan	Prof. Dr. Halil İbrahim SAĞLAM	
Üye	Prof. Dr. Ahmet AKIN	
Üye	Prof. Dr. Özlem FEDAI	
Üye	Prof. Dr. Selami AYDIN	
Üye	Prof. Dr. Yeşim GÜLEÇ ASLAN	
Üye	Doç. Dr. Özge CENGİZ	
Üye	Doç. Dr. Özcan Erkan AKGÜN	
Üye	Av. Fevziye DOĞRUER	

Appendix E – Detailed Mean Values of TISES

Technology Integration Self-Efficacy Scale Descriptive Statistics	
Items	Mean Values
1. I feel confident that I understand capabilities of technological tools well enough to maximize them in my classroom.	4.20
2. I feel confident that I have the skills necessary to use technological tools for instruction.	4.28
3. I feel confident that I can successfully teach relevant subject content with appropriate use of technology.	4.26
4. I feel confident in my ability to evaluate software for teaching and learning.	3.97
5. I feel confident that I can use correct technology terminology when directing students' technology use.	3.96
6. I feel confident I can help students when they have difficulty with technological tools.	3.74
7. I feel confident I can effectively monitor students' use of technological tools for project development in my classroom.	3.73
8. I feel confident I can motivate my students to participate in technology-based projects.	3.78
9. I feel confident I can mentor students in appropriate uses of technology.	3.68
10. I feel confident I can consistently use educational technology in effective ways.	3.92
11. I feel confident I can provide individual feedback to students during technology use.	3.93
12. I feel confident I can regularly incorporate technology into my lessons, when appropriate to student learning.	4.16
13. I feel confident about selecting appropriate technology for instruction based on curriculum standards.	3.96
14. I feel confident about assigning and grading technology-based projects.	3.91
15. I feel confident about keeping curricular goals and technology uses in mind when selecting an ideal way to assess student learning.	3.82
16. I feel confident about using technology resources (such as spreadsheets, electronic portfolios, etc.) to collect and analyze data from student tests and products to improve instructional practices.	3.87
17. I feel confident that I will be comfortable using technology in my teaching.	4.23
18. I feel confident I can be responsive to students' needs during the use of technological tools.	3.92
19. I feel confident that, as time goes by, my ability to address my students' technology needs will continue to improve.	4.16
20. I feel confident that I can develop creative ways to cope with system constraints (such as budget cut on technology facilities) and continue to teach with technology.	3.52
21. I feel confident that I can carry out technology-based projects even when I am opposed by skeptical colleagues.	3.69

Appendix F – Detailed Mean Values of FLTAS

Foreign Language Teaching Anxiety Scale Descriptive Statistics	
Items	Mean Values
1. I feel uncomfortable when I use Turkish in the class.	3.03
2. The thought of making a grammar mistake worries me.	2.17
3. I feel anxious about my students testing my knowledge of English.	1.84
4. The thought of making a spelling mistake on the board disturbs me.	2.08
5. I get so nervous when I am teaching English that I forget the things that I know.	1.65
6. I feel nervous when teaching English to students with an average proficiency level.	1.54
7. I feel tense when I am giving instructions in English.	1.30
8. I feel uncomfortable when my English knowledge is compared to that of other teachers.	1.79
9. I feel my knowledge of English is not good enough to teach in English.	1.21
10. I worry about not being able to teach grammar effectively.	1.58
11. I feel uncomfortable when teaching a skill in which I feel I am not proficient enough.	1.93
12. I worry about not being able to teach listening effectively.	1.64
13. I worry about not being able to give clear instructions in English.	1.49
14. I feel nervous when speaking English in class.	1.19
15. I feel nervous when teaching English to students with a high proficiency level.	1.67
16. I worry about not being able to teach speaking effectively.	1.70
17. I feel uncomfortable when I think about having used Turkish during the lesson.	2.12
18. Teaching English to students with a high level of language proficiency makes me feel uneasy.	1.65
19. I feel uneasy when my English teaching methods are compared to that of other teachers.	1.82
20. I feel uneasy when I am teaching speaking topics.	1.50
21. I am afraid of my students criticizing my knowledge of English.	1.49
22. I worry about not being able to teach reading effectively.	1.36
23. I feel uneasy when I am teaching listening topics.	1.43
24. I worry about not being able to teach writing effectively.	1.56
25. I feel anxious about making a mistake while teaching English.	1.69
26. I feel uneasy thinking that I might have to use Turkish during the class.	1.83

ÖZGEÇMİŞ

KİŞİSEL BİLGİLER

Adı Soyadı: Zerrin Gürkaya Dindar

Uyruğu: T.C.

Elektronik Posta:

EĞİTİM

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Yüksek Lisans	İstanbul Medeniyet Üniversitesi, Lisansüstü Eğitim Enstitüsü, Yabancı Diller Anabilim Dalı, İngiliz Dili Eğitimi	devam ediyor

İŞ TECRÜBESİ

Tarih	Kurum	Görev
2014 - 2018	Başkent Üniversitesi	Okutman
2018 - devam ediyor	İstanbul Üniversitesi	Öğretim Görevlisi

YABANCI DİLLER

İngilizce İleri Seviye