



ISTANBUL MEDENİYET UNIVERSITY
INSTITUTE OF GRADUATE STUDIES
DEPARTMENT OF FOREIGN LANGUAGES EDUCATION

**Foreign Language Teachers' Interactions with Their
Students on Learning Management Systems**

Master's Thesis

Necla Burçin Giritlioğlu

July, 2023



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THESIS JURY APPROVAL

This MA thesis titled “Foreign Language Teachers’ Interactions with Their Students on Learning Management Systems” written by Necla Burçin GİRİTLİOĞLU at the Department of Foreign Language Education was accepted by our jury.

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Date of Defense: 03 / 07 / 2023

STATEMENTS

Style and Reference Manual Statement

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

Prof. Dr. Selami Aydın

Declaration of Originality

I hereby declare that all information in this thesis 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.

Necla Burçin Giritlioğlu

GENİŞ ÖZET

Yabancı Dil Öğretmenlerinin Öğretim Yönetim Sistemleri Üzerinden Öğrencileri ile Etkileşimleri

Giritlioğlu, Necla Burçin

Yüksek Lisans Tezi, Yabancı Diller Eğitimi Anabilim Dalı

Danışman: Prof. Dr. Selami Aydın

Temmuz 2023

Öğretmen ve öğrencilerin arasında etkileşim olmayan bir yabancı dil sınıfı düşünülemez. Sınıf içi iletişim tek yönlü değil öğretmenler ve öğrencileri arasında gerçekleşen karşılıklı bir süreçtir. Zamanla sınıftaki iletişimin yalnızca öğretmenler ve öğrenciler arasında olmadığını savunan görüşler ortaya atılmıştır. Örneğin, Moore (1989)'a göre sınıfta öğrenen-içerik etkileşimi, öğrenen-öğretmen etkileşimi ve öğrenen-öğrenen etkileşimi olmak üzere üç tür etkileşim vardır. Moore'a ek olarak, Hillman vd. (1994) öğrenenlerin eğitim-öğretimde kullanılan teknolojik araçlarla da iletişim kurduklarını belirterek öğrenen-arayüz etkileşimi ifadesini ortaya atmıştır.

Teknolojideki gelişmeler geleneksel sınıf ortamlarının çevrimiçi ortamlara aktarılmasına sebep olamaya başlamıştır. Ayrıca, geleneksel sınıf ortamlarında iletişimle ilgili sıkıntılar yaşanmaktadır. Sınıfların kalabalık olması, konuşmaya şevkli öğrencilerin kalabalık içinde konuşmaya fırsat bulamaması, öğretmenin tüm öğrencilere özel ilgi göstermeye ve etkileşimli aktiviteler yapamaya uzun vakit ayıramaması ve sınıfta gürültünün hâkim olması gibi olumsuzluklar sınıf içi iletişime ket vurmaktadır. Hem teknolojideki ilerlemeler sayesinde hem de geleneksel sınıf ortamında karşılaşılan sorunları telafi edebilmek adına öğretmenlerin Öğretim Yönetim Sistemleri (ÖYS)'ni kullanarak çevrimiçi öğrenme ortamlarında iletişimi devam ettirmeleri gerekmektedir.

ÖYS'ler, çevrimiçi öğrenme ortamlarının işletilmesini mümkün kılan yazılımlar veya internet tabanlı platformlar olarak tanımlanabilir (Srichanyachon, 2014). Başka bir ifadeyle, ÖYS'ler eğitimin yürütülmesini, kayıt altına alınmasını ve raporlanmasını otomatikleştiren; çevrimiçi derslerin açılmasını, verilmesini ve devamlılığını sağlayan; öğrencilerin derslere kayıt

olmalarına olanak tanıyan bir yazılımdır (Dagger vd., 2007; Simanullang ve Rajagukguk, 2020). Levy ve Stockwell (2013)'e göre ÖYS'ler eğitimcilerin öğrencilere farklı etkinlikler verdikleri, öğrencilerle iletişim kurdukları, sınıf içi diyalogları öğretim materyallerinin paylaşımını destekleyen dijital programlardır.

Açık kaynak kodlu, ticari, kişiselleştirilmiş ve kurumsal gibi çeşitli türleri olan ÖYS'lerin, sınıf etkileşimi üzerinde olumlu etkileri vardır. Uzaktan eğitim alan öğrencilerin senkron ve asenkron etkileşim şekilleriyle diğer kullanıcılarla kolaylıkla iletişim kurabilmeleri; öğretmen ve öğrencilerin zaman ve mekân fark etmeksizin özgürce iletişim halinde olabilmeleri; öğrencilerin ihtiyaç duydukları anda gereken yardımı alabilmeleri; öğrencilerin özgürce iletişim kurabildikleri bu dijital platformlarda sosyal kimliklerini ve çevrelerini geliştirebilmeleri ile nesiller arası etkileşimi ve öğretmen-öğrenci-veli iletişimini kolaylaştırması ÖYS'lerin pozitif etkilerin arasında gösterilebilir.

Alanyazında ÖYS'lerin eğitim-öğretimde kullanılmasıyla ilgili yapılmış hem ulusal hem de uluslararası çalışmalar bulunmaktadır. Uluslararası çalışmalar incelendiğinde, ÖYS'lerin öğretmen-öğrenci-veli-okul iletişimini canlandırdığı ve ÖYS'lere oyunlaştırmanın entegre edildiğinde öğrenenlerin daha çok motive olduğu sonuçlarına varılmaktadır. Literatürdeki bazı araştırmalar ise ÖYS'lerin faydalı olup olmadığı hakkında öğretmen ve öğrenci görüşlerinin farklılaştığını ortaya çıkarmıştır. Öte yandan, ÖYS'lerin öğrenciler ve öğretmenler için her zaman yararlı olmayabileceğini, hatta öğrencilerin bazı sosyal medya sitelerini iletişim kurma açısından daha faydalı bulduklarını gösteren araştırmalar da mevcuttur. ÖYS'lerin Türkiye'de yabancı dil öğretilirken kullanılmasıyla ilgili yapılan çalışmaların sonuçlarına göre öğretmenlerin ve öğrenenlerin ÖYS'leri iletişim kurma amaçlı kullandıkları, bu dijital öğrenme platformlarının kullanılmasına karşı olumlu bir tutum sergiledikleri ve pozitif etkilerinin farkında oldukları görülmektedir. Hatta bazı çalışmalar, Facebook'un Türkiye'de bir ÖYS olarak etkili bir şekilde kullanılabildiğini göstermektedir. Alanyazında eğitimcilerin demografik özellikleriyle ÖYS kullanımları arasında bir ilişki olup olmadığını gösteren çalışmalar sayıca azdır. Eldeki çalışmaların sonuçları incelendiğinde ise eğitimcilerin çalıştıkları okuldaki pozisyonlarının ve öğretmenlik tecrübelerinin ÖYS'leri kullanmalarında etkili olduğu anlaşılmaktadır.

Bu çalışmanın birinci amacı, yabancı dil eğitmenlerinin öğrencileri ile ÖYS'ler üzerinden kurdukları etkileşimin düzeyini belirlemektir. İkinci olarak, ÖYS'lerin bir etkileşim aracı olarak kullanımının cinsiyet, yaş, ana dil, öğretmenlik deneyimi, çalışılan üniversitenin türü, eğitim durumu ve idari görev gibi demografik özellikler ile haftalık toplam ders saati, haftalık yüz yüze ders saati ve haftalık çevrimiçi ders saati gibi değişkenlere göre farklılaşıp farklılaşmadığını anlamaktır. Bu çalışma, Seliger ve Shohamy (1989)'nin belirttiği gibi araştırma sorusunun yazılması, katılımcıların seçilmesi, veri toplama stratejisinin belirlenmesi, veri toplama ve veri analizi gibi beş evreden oluştuğu için betimleyici bir araştırmadır.

Çalışmaya, Türkiye'deki özel ve devlet üniversitelerinin hazırlık okullarında çalışan toplam 246 İngilizce öğretim görevlisi katılmıştır. Çalışmanın verileri, ilk kısmında öğretim görevlilerinin demografik özelliklerinin sorulduğu; ikinci kısımda ise Teclehaimanot ve Hickman (2011)'dan uyarlanan ve öğretmenlerin ÖYS'ler üzerinden öğrencileriyle kurdukları iletişimi inceleyen 24 maddelik bir ölçeğin olduğu Google Formlar üzerinden hazırlanan çevrimiçi bir anket aracılığıyla toplanmıştır. Verilerin çevrimiçi ortamda toplanmasının sebepleri olarak hem kısa zamanda Türkiye'nin her yerinden çok sayıda katılımcıya ulaşmak hem de tüm dünyayı etkisi altına alan Covid-19 salgını olarak gösterilebilir.

Veriler toplandıktan sonra SPSS analiz programının 21. sürümüne geçirilerek analiz edilmiştir. Anketin geçerlik ve güvenilirlik testleri yapıldıktan sonra detaylı veri analizine başlanmıştır. Verilerin normal dağılmadığının gözlemlendiği durumlarda Kruskal-Wallis H ve Mann-Whitney U gibi parametrik olmayan testlerden faydalanılmıştır. Verilerin normal dağıldığının farz edildiği durumlarda ise bağımsız örneklem T testi ve tek yönlü ANOVA kullanılmıştır. Bu analizleri takiben, hangi gruplar arasında anlamlı farklılık görüldüğünü belirleyebilmek için Post Hoc analizlerinden Tamhane'nin T2 testi, Tukey HSD ve LSD testlerinden yararlanılmıştır.

Bu çalışmadan elde edilen sonuçlar ışığında yabancı dil öğretim görevlilerinin ÖYS'ler üzerinden öğrencileriyle kurdukları etkileşimin yüksek, orta ve düşük düzeyde olduğu ve öğretim görevlilerinin demografik özelliklerinin ÖYS üzerinden sağlanan öğretmen-öğrenci iletişimini etkilediği söylenebilir. İlk olarak, katılımcı İngilizce öğretim görevlilerinin en sık kullandıkları

ÖYS'nin Moodle olduđu ve Moodle'ı kullanırken en çok dizüstü bilgisayarlarını kullandıkları verisine ulaşmıştır. İkinci olarak, ÖYS'ler aracılığıyla kurulan iletişim düzeylerine bakıldığında, yabancı dil öğretmenlerinin en yüksek düzeyde kurdukları iletişim şekli öğrencilerinin çalışmalarına, ödevlerine ve akademik performanslarına geribildirim vermektir. Bu iletişim şeklini ÖYS platformuna ders materyallerini yükleme, duyuru yapma, gelen öğrenci cevapları için eposta veya ÖYS vasıtasıyla bildirim alma, ders programını paylaşma, öğrencilere düzenli aralıklarla hatırlatmalarda bulunma ve ÖYS'lerin eposta özelliklerini kullanarak öğrencilerle iletişim kurma takip etmektedir. ÖYS'ler üzerinden kurulan orta düzeyli öğretmen-öğrenci iletişimi ise video konferans özelliğini kullanma, öğrencileri ÖYS üzerinden bildirim almaya teşvik etme, ÖYS mobil uygulamasını kullanma, öğrenci gönderilerine yorum yapma, raporlama araçlarını kullanma, kişisel mesaj yollama, canlı sohbet özelliğini kullanma, öğrenci gönderilerini beğenme, interaktif oyunları kullanma ve “yapılacaklar listesi” oluşturma şeklindedir. Son olarak, İngilizce öğretim görevlilerin en düşük düzeyde kullandıkları iletişim şeklinin başında ÖYS üzerinden anketler oluşturarak farklı konular hakkında öğrencilerin fikirlerini alma olduğu tespit edilmiştir. Öğretim görevlileri ayrıca ÖYS'lerin tartışma forumu özelliklerini nadiren kullandıklarını belirtmişlerdir. Benzer şekilde öğrencilerin başarılarına göre onlara rozet verme ve etkileşimli bir öğrenme ortamı sayılabilecek blogların kullanımı düşük düzeyde kalmıştır. Sonuç olarak, yabancı dil öğretmenlerinin öğrencileriyle ÖYS'ler üzerinden kurdukları etkileşimin daha çok içerik paylaşımı ve performans değerlendirme amacıyla yapıldığı görülmüştür.

İngilizce öğretim görevlilerin demografik özelliklerine bakıldığında, bu özelliklerin genel olarak öğretmen-öğrenci iletişim düzeyini etkilemediği ancak belirli iletişim şekilleri üzerinde etkili olduğu bulunmuştur. Örneğin, öğretmenlerin cinsiyetlerinin ÖYS'ler üzerinden kurulan iletişim düzeyine bir etkisi olmasa da kadın öğretmenlerin ÖYS'leri daha çok içerik paylaşımı amacıyla kullandığı; erkek öğretmenlerin ise anketler hazırlayarak öğrenci fikirlerini daha çok alan taraf olduğu belirlenmiştir. Öğretim görevlilerinin yaşları incelendiğinde, 30 yaş altı öğretim görevlilerinin özellikle 51 yaş üzeri öğretim görevlilerine göre ÖYS'ler üzerinden öğrencileriyle daha fazla etkileşimde bulunduğu saptanmıştır. Anadili İngilizce ve Türkçe olan

İngilizce öğretim elemanları kıyaslandığında, Türk öğretmenlerin ÖYS'leri bir etkileşim aracı olarak daha fazla kullandıkları görülmüştür. Bir diğer bulgu, öğretmenlik tecrübesinin ÖYS'ler vasıtasıyla kurulan iletişim üzerinde etkili olmadığıdır. Ancak, ÖYS'lerin ve oyunlaştırmanın entegre edilerek etkileşimli bir öğrenme ortamı yaratmak konusunda 5 yıl ve altı ile 11-15 yıllık deneyimi olan öğretmenler daha uzun süre öğretmenlik yapanlara göre daha aktif bulunmuştur. Ayrıca, devlet üniversitelerinde çalışan İngilizce öğretim görevlilerinin özellikle öğrenci gönderilerine yorum yapma ve gönderileri beğenme ile blog sayfalarını ÖYS'ye entegre ederek kullanma konularında özel üniversitelerde çalışanlara göre daha aktif oldukları belirlenmiştir. Ek olarak, yabancı dil öğretim görevlilerinin eğitim geçmişleri yalnızca ÖYS'ler üzerinden öğrencilerinin başarılarına rozet verme konusunda anlamlı bir farklılık göstermiştir. Bunların yanında, öğretmenlerin haftalık yüz yüze ve çevrimiçi verdikleri ders saatleriyle ÖYS üzerinden öğrencileriyle iletişim kurmaları arasında negatif bir ilişki olduğu belirlenmiştir. Tüm bunların aksine, öğretmenlerin çalıştıkları kurumda idari görevlerinin olup olmaması ile ÖYS'ler vasıtasıyla öğrencileriyle iletişim kurma düzeyleri arasında bir ilişkiye rastlanmamıştır.

Bu çalışmanın bulgularıyla alanyazında karşılaşılan çalışmalar arasında benzerlikler olduğu görülmektedir. İlk olarak, bu çalışma, ÖYS'lerin eğitim-öğretimde iletişim açısından faydalı olduğu (Holmes ve Prieto-Rodriguez, 2018; Snoussi, 2019; Walker vd., 2016) ve geleneksel eğitim ortamlarının kalitesini arttırdığı (Rutter ve Matthews, 2002; Saunders ve Klemming, 2003) ile ilgili sonuçlara ulaşan çalışmalarla tutarlıdır. İkinci olarak, alanyazında yapılan çalışmalar ÖYS'lerin etkileşimli özelliklerinden ziyade daha çok içerik paylaşımı amacıyla kullanıldığını ortaya koymuştur. Bu çalışma da aynı sonuçları elde etmiştir.

Alanyazında, bu çalışmanın bulgularıyla ters düşen bazı araştırmalar da bulunmaktadır. Örneğin, Hazari (1998) ÖYS'lerin mesaj panoları, gerçek zamanlı sohbet özellikleri ve eposta gönderme özelliklerini kullanarak öğrencilerin hem birbirleriyle hem de öğretmenleriyle iletişim kurmalarının önemini savunmaktadır. Benzer şekilde, Henderson (2003) ÖYS'lerin tartışma forumu özelliğinin kullanılarak pasif öğrencilerin aktif katılımcılara dönüştürülebileceğini belirtmektedir. Ancak bu güncel çalışma, yabancı dil öğretim görevlilerinin ÖYS'lerin tartışma forumları, canlı sohbet ve eposta

gibi interaktif özelliklerini orta ve düşük düzeyde kullandıklarını ortaya çıkararak Hazari (1998) ve Henderson (2003) ile ters düşmektedir.

Öğretmenlerin demografik özellikleri ve ÖYS kullanımları ile ilgili yapılan çalışmaların sonuçlarıyla güncel çalışmanın bulguları arasında farklılıklar bulunmaktadır. Güncel çalışma, yabancı dil öğretim görevlilerinin demografik özelliklerinin ÖYS'ler vasıtasıyla sağladıkları etkileşim düzeyini etkilemediği sonucuna varmıştır. Ancak literatürde, kadın öğretmenlerin öğrencilerin iletişim kurmaları için senkron ve asenkron araçları daha fazla kullandıklarını (Abazi-Bexheti vd., 2018; Tena vd., 2016); öğretim görevlilerinin görev sürelerinin dijital öğrenme platformlarını ne ölçüde benimseyip kullandıklarını etkilediğini (Gautreau, 2011); öğretmenlerin tecrübelerinin arttıkça ÖYS'leri kullanma potansiyellerinin azaldığını (Çiğdem ve Topçu, 2015) ve öğretmenlerin devlet veya vakıf üniversitelerinde görev yapmalarıyla teknolojik platformları kullanmaları arasında bir korelasyon olduğunu (Erdin ve Uzun, 2021) belirten araştırmalar mevcuttur.

Çalışmadan elde edilen sonuçların ışığında ÖYS'lerin eğitim-öğretime entegre edilmesi ve etkili kullanılması için bazı pratik öneriler getirilebilir. Yabancı dil öğretmenlerinin ÖYS'leri kullanmak için içsel motivasyonlarının olması ve çalıştıkları kurum tarafından bu platformları kullanmaları konusunda teşvik edilmeleri önemlidir. İkinci olarak, bu dijital öğrenme platformları ders kitaplarına veya öğretim programlarına entegre edilerek öğrenme materyalleri etkileşimli hale getirilebilir. Üçüncü olarak, okullar mobil uygulaması olan ÖYS'leri kullanmayı tercih ederek akıllı telefonlarla büyüyen yeni neslin de bu platformları hızlı ve kolay bir şekilde kullanmasını sağlayabilirler. Dördüncü olarak, yabancı dil öğretmenlerinin ÖYS'leri sadece materyal paylaşımı amacıyla değil bir sosyalleşme ve hedef dili kullanarak etkileşim kurabilecekleri bir ortam olarak görmeleri büyük önem taşımaktadır. Ayrıca, ÖYS'lerin H5P eklentilerinden faydalanılarak bu dijital öğrenme ortamları daha etkileşimli bir hale getirilebilir. Son olarak, öğretmenler yabancı dil öğretirken oyunlar oynatmanın öğrencileri motive edeceğini, eğlendireceğini ve aktif katılmalarını sağlayabileceğini göz önünde bulundurarak kullandıkları ÖYS platformlarına oyunları daha fazla entegre etmelidirler.

Gelecekte bu konuyla ilgili daha fazla çalışma yapmak isteyen arařtırmacıların örneklem sayısını büyütmeleri ve veri toplama süresini daha uzun tutmaları yerinde olabilir. Ek olarak, bu çalışma sadece öğretim görevlilerinin öğrencileriyle kurdukları iletişime odaklandığı için ilerideki çalışmalar öğrencilerin öğretmenleriyle ÖYS'ler üzerinden ne derece ve nasıl iletişim kurduklarını inceleyebilir. Ayrıca ileriki çalışmaların karma desende planlanması ve öğretmenlerin aldıkları ÖYS eğitimleri ve teknoloji yeterliliği algıları gibi değişkenlerin de incelenmesi bu konuya farklı bir boyut kazandıracaktır.

Anahtar Kelimeler: Öğretim Yönetim Sistemleri, Yabancı Dil, İngiliz Dili Eğitimi, Etkileşim, Öğretim Görevlileri

ABSTRACT

Foreign Language Teachers' Interactions with Their Students on Learning Management Systems

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Master's Thesis, Department of Foreign Language Education

Supervisor: Prof. Dr. Selami Aydın

July 2023

Speaking in the target language is an essential requirement in language courses. However, high class population, classroom noise, and students' fear of public speaking are just a few of the obstacles that instructors and students may face while communicating with each other. Therefore, distant and web-based education platforms can facilitate dialogues between students and instructors beyond the confines of the classroom. The purpose of the study is determining the extent of LMS interactions between EFL instructors and their students and whether demographic factors have an impact on this form of communication. This is a descriptive study since it is important to learn about how EFL instructors and their students interact while using LMSs. 246 English instructors who were employed in preparatory schools across a range of state and private universities in Turkey participated in the study. A demographics questionnaire and a survey with 24 items that were adapted from Teclehaiamnot and Hickman (2011) were given to the participants for data collection. The statistical data underwent analysis utilizing both parametric and non-parametric tests via SPSS software. The study's findings indicated that there were three levels of interaction between EFL instructors and their students while using LMSs: high, moderate, and low. Moreover, the only purpose of LMSs that were deployed by FL instructors was the distribution of educational materials rather than the development of social connections among learners. In addition, the adoption of LMSs by EFL instructors displayed no differences according to their demographic characteristics except for their native languages and weekly online teaching hours.

Keywords: Learning Management Systems, Foreign Language, English Language Teaching, Interaction, Instructors

ACKNOWLEDGEMENTS

I would like to convey my deep thanks to those who have provided me with continuous encouragement and support during the process of writing my thesis.

In the beginning, I would like to state my heartfelt gratitude to my supervisor, Prof. Dr. Selami Aydın, for providing me with understanding, assistance, and motivation during the course of my research. Having the opportunity to conduct a study and write an MA thesis under his supervision was a great honor.

I would like to express my thanks to outstanding academics Asst. Prof. Ferdane Denkci Akkaş and Assoc. Prof. Özge Cengiz for the invaluable instruction and assistance they provided to me when I was pursuing my MA. I am appreciative that I had a chance to learn from their knowledge.

In addition, I am indebted to Prof. Hatice Gülru Yüksel for her understanding, backing, and consent in carrying out my study and allowing me to maintain regular communications with my supervisor since I began the process of writing my thesis.

I would also like to thank the Scientific and Technological Research Council of Türkiye (TÜBİTAK) for funding my MA.

Moreover, I am thankful for all the instructors who took part in this study. Their involvement made this study possible.

Last but not least, I would like to express my sincere thanks to my beloved parents and friends who did not withhold their support me. I am grateful to my colleagues Asst. Prof. Emrah Özcan for his constant support and especially, Asst. Prof. Gülümser Efeoğlu for her endless academic guidance, advices, and encouragement. Also, I want to thank my friend and personal trainer Metin Yavuz who helped me to protect my physical and emotional health. Furthermore, I want to thank my dear mother who always provided emotional support whenever I needed.

DEDICATION

*To my beloved family
Süheyla and Mehmet Süha GİRİTLİOĞLU*

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LIST OF ABBREVIATIONS

ÖYS: Öğretim Yönetim Sistemi

EFL: English as a Foreign Language

FL: Foreign Language

LMS: Learning Management System

LMSs: Learning Management Systems

CITED: Computer and Instructional Technology Education Department

FOE: Faculty of Education

IMU: Istanbul Medeniyet University

I-S: Instructor-Student

1. INTRODUCTION

Background of the study, statement of the problem, purpose, significance of the study, research questions, and limitations are the titles presented in this chapter. First, the background of the study highlights the importance of interaction in the classroom, the place of LMSs, in education, and the usefulness of these online learning platforms in the sense of teacher-student interaction. Second, the problems that may arise from the classroom environment and those digital learning platforms are mentioned. Next, the aim and the importance of the study are expounded. After the research questions are sorted, the chapter ends with the limitations of the study.

1.1. Background of the Study

It is impossible to think about an EFL classroom where there is no interaction between students and teachers. Classroom interaction is not a one-way process but an exchange between the teacher and the students. For example, the Communication Model by Malamah-Thomas (1987) suggests that the classroom interaction continues only when one party decides what to say and how to act according to the other party's message (Malamah-Thomas, 1987, as cited in Mingzhi, 2005). In a word, classroom interaction is a cycle in which the teacher conveys the message, the learners respond accordingly, and the teacher adjusts his or her speech according to the feedback he or she gets. It is advocated that interaction is the most efficient means of achieving success in the second language. According to Tuan and Nhu (2010), learners are successful in both verbal and written communication, which is the main reason for learning a FL and can be accomplished through interaction. In addition, when the learners are engaged in the learning process, the learning occurs more powerfully (Stevick, 1976, as cited in Allwright, 1984).

Furthermore, being fluent, realizing and revising syntax requiring adjustment, exploring grammatical sentences, and understanding more than the words' literal meanings can happen if students interact in the classroom (Swain, 1985, as cited in Hall & Verplaetse, 2000). Classroom interaction is also important to prepare students for the outside world. Savignon (1972) claims that unless learners are exposed to real-world examples in the classroom, they cannot apply their classroom knowledge to everyday life (Savignon, 1972, as cited in Allwright, 1984). Interaction not only helps learners to communicate in real-life situations but also keeps classroom functions appropriately fulfilled. Ellis (1991) declares that classroom interaction has its characteristic and specific purposes such as giving and following instructions, running individual and group tasks, and creating harmony in the classroom.

With the technological advances in education, traditional education has been accompanied by digital software called LMS as a learning and communication tool. It can be said that web-based learning platforms have numerous benefits for both educators and their learners. First, LMS have administrative features that authorize educators to manage courses, students, and the system. LMS enable enrolling courses, running classes, identifying academic differences among learners, pursuing learner achievement, and informing everyone in the learning process about learners' progress (Gilhooly, 2001, as cited in Watson & Watson, 2007). Secondly, LMS are archives that teachers can share and keep written materials and multimedia files. As Costa et al. (2012) state, the main aim of utilizing those platforms is to store resources and data. Teachers can upload presentations, worksheets, listening tracks, recorded lectures, videos, online quizzes, and even course schedules and booklets onto LMS so that their students can have limitless access to study with those resources. Another benefit of using LMS is that it provides

educators and students the flexibility to reach online learning sources. Walker et al. (2016) point out that students can access the resources on LMS irrespective of time and place as long as their devices are connected to the internet. Moreover, students are able to take courses off-campus and from other higher institutions via those virtual platforms (Garrote & Pettersson, 2007).

In addition to their accessibility and functionality, LMS have gained significance in maintaining communication among teachers, students, and parents through LMS. Educators can send messages, share polls, upload video messages and utilize interactive whiteboard tools to communicate with their students. Liaw (2008) asserts that the level of interaction will increase when the students use the virtual learning platforms in real time or at different times. In addition, completing tasks on LMS will help teachers and students to share what they know and what they have experienced so far with each other. Thus, those digital learning platforms have become crucial since they contribute to sharing and communication.

1.2. Statement of the Problem

In recent years, technology has been improving rapidly and has been utilized in education for different purposes. Various LMSs have been preferred by institutions from primary schools to universities to maintain the connection between the courses and the learners. Teachers can use those platforms to help their students reach extra materials and keep in touch outside of the class. Sustaining interaction in an online and academic platform is possible through utilizing LMS by teachers. Teachers should benefit from LMS to back up their learners' academic achievements and not lose the connection.

In the traditional classroom, the more teachers design their lessons interactively, the more often they encounter communication-related problems. One of the most common problems related to classroom communication is the classroom atmosphere. Students may feel threatened by the teacher or their classmates and refuse to talk in the classroom. In addition, the classroom dynamic and the harmony among the students highly affect classroom interaction. Unless they build a good rapport and positive learning environment, they remain silent most of the time. Secondly, learners' personalities can cause communication problems. If a classroom comprises shy and introverted students, it is likely to witness minimum interaction. Even though those students do not have any problems with learning, they may not like talking with others. Another communication problem may arise from inadequate language knowledge. Students might not express themselves fully upon having limited vocabulary and grammar knowledge; thus, they prefer to be less involved in communicative tasks. Finally, teachers' lack of classroom management skills can hinder classroom interaction. If the teacher does not give the students equal chances to speak and give the floor to different students, especially silent ones, only some students will participate in communicative activities.

Nevertheless, there are some problems related to LMS. Firstly, those virtual learning platforms require an internet connection to be used. However, it is impossible to access learning resources or read messages sent by the teacher when there is no internet connection. Another handicap of LMS is that some online learning platforms may not be very user-friendly. While some do not have a lot of features, some are full of apps. LMS which have limited features and tools can cause students to be unmotivated. On the other hand, if an online learning platform has too many apps, students may get confused,

which leads to a loss of motivation. In addition to these, some LMS can be used both on mobile phones and computers. However, mobile applications might not work properly, so students cannot utilize those platforms properly.

In addition to motivational and technical problems, interactional breakdowns can be encountered when utilizing LMSs. That students feel unmotivated throughout the distance learning process is the biggest problem of interaction on LMSs. It is clear that virtual classrooms are not as intimate and warm as physical classrooms; therefore, students are not eager to communicate with each other on the screen. Furthermore, the low quality of LMSs can bring about communication-related problems. Poor quality services such as bad display, the video freezes, and low-quality sound decrease interaction quality. Last, LMSs provide limited communicative opportunities since they are mainly administrative tools. Costa et al. (2012) mention that LMSs are the archives to keep online learning materials and information. Because of this reason, they may not be very convenient for communicative purposes. Moreover, this web-based software does not allow teachers to use pair and group work like in real class.

1.2.1. Interaction Problems Related to the FL Learning Context

Classrooms are the places where learning happens most of the time for school-age children or students attending a university. Many factors in the real classroom environment can have a drawback on the teacher-student interaction. In the first place, classrooms comprising many students can be a problem for communicative tasks, which are a great chance for learners to interact. It might be challenging for teachers to manage communicative activities in large classes. Hence, the most important interaction for students is hindered. Moreover, the larger the class size, the less enthusiastic students

will be to talk (Khazaei et al., 2012). Students who are afraid of voicing their opinions in front of others cannot be expected to improve their speaking and communicative skills. Conversely, students in a small classroom feel more stimulated to display their speaking skills (Wells & Chang-Well, 1992). In addition, large classes restrain teachers from paying special interest to weaker students and involving them in communicative tasks (Pedder, 2006). The existence of a considerable number of students in the classroom can create a noisy environment causing the teacher not to be heard or to be misunderstood. Information, instructions, and oral feedback provided by teachers can be hard to hear for students; consequently, this impedes the interaction between teachers and students. The chaos resulting in a noisy classroom environment is likely to affect student-student interaction. Not all schools have equal opportunities to furnish their classrooms with comfortable desks, posters, computers, projectors, and other educational materials. However, smart classes with technological equipment and internet connections appeal to more students with different learning styles since technology provides many alternative ways to communicate (Conway, 2000, as cited in Hill & Epps, 2010).

1.2.2. Interaction Problems Related to the Learning Management Systems

One of the biggest communication problems brought about by LMS is providing mostly asynchronous discussions. Although LMS offers continuous access through a wide variety of materials and communication tools, student interaction may not be as high as in real-time communication (Torun, 2013). Secondly, interaction on virtual learning platforms is negatively affected by these three factors: communication in isolation, lack of unity of real communication, and the dissimilarity of written and spoken interaction

(Thomas, 2002). Even though language learners are provided with various ways of communication through LMS, they are actually far from real communication since they are isolated from each other. They cannot use communicative strategies like interrupting or turn-taking, and written language completely differs from oral communication. Therefore, using LMS for classroom communication may not effectively open and maintain good conversations. Similarly, Moore (1980) alleges that teachers and their students cannot gather together and are behind the computer screens can cause a mental and communicational gap. As a result, this gap obstructs teachers' and students' ability to comprehend each other while communicating (as cited in Bouhnik and Marcus, 2006). Furthermore, learners need to use a wide variety of LMS features and tools competently while interacting with each other on LMS; otherwise, they cannot get efficiency from online communication (Dias & Diniz, 2013). Although they are commonly used to provide communication, online discussion forums cannot facilitate the meaningful and engaging exchange needed for conversation (Hewitt, 2001; Thomas, 2002). Also, whether the LMS used in an institution is powerful, affordable, flexible, and appropriate for the students' and instructors' profiles impacts student participation in the courses (Alenezi, 2018). The final problem is that a slow and unstable internet connection negatively affects LMS usage; thus, student learning and interaction are also deterred (Alenezi, 2018).

1.3. Purpose of the Study

In language classes, communicating in the target language is a necessity. However, regardless of age, students who are afraid of making mistakes and have speaking anxiety will likely avoid using the target language in front of their peers and teachers. It is challenging for teachers to

get those students to talk in a FL. Within this scope, remote and online communication tools can assist teachers in communicating with these timid students. For this reason, this study has two purposes. The first purpose is to find out the level of communications of EFL instructors working in university preparatory schools with their students outside the classroom using LMSs. Secondly, the study attempts to find out if demographic variables of instructors affect the use of LMSs as a means of communication.

1.4. Significance of the Study

The current study is noteworthy for a number of reasons. In the first place, the study contributes to the related literature by revealing whether prep school teachers interact with their students via LMSs outside the classroom or not. Second, the study emphasizes the diversity and importance of LMSs in terms of interaction. Prep school instructors will be likely to raise their awareness about the efficiency of various LMSs and the communication tools within them. Third, the study is conducted with instructors working in both state and private higher education institutions in Turkey; thus, the study can provide a wide number of results. Besides that, it can shed light on state and private university instructors' habits of utilizing technological tools. Finally, the study also makes suggestions for instructors, teachers, researchers, and curriculum developers on the utilization of LMSs to interact with students beyond the classroom.

1.5. Research Questions

Communication can be said to be the focal point of the classroom because it emerges continuously for different reasons from the moment one steps into the classroom. With the widespread use of distance education and

the use of the flipped learning model by schools, the communication between teachers and students may have been interrupted. LMSs are very suitable for teachers to constantly contact their students outside of the classroom. The reason why teachers should definitely use LMSs is that these platforms enable unremitting communication outside the classroom, make it easier to share learning materials, are accessible from all kinds of technological tools, and it is possible to make students feel more comfortable speaking from behind the keyboard. To this end, this study aims to find answers to the following questions:

1. What is the level of EFL instructors' interactions with their students via LMSs?
2. Does the use of LMSs as interaction tools differ regarding demographic variables such as gender, age, mother tongue, teaching experience, kind of university worked, educational background, managerial duties, weekly teaching hours in total, in person weekly teaching hours, and online weekly teaching hours?

1.6. Limitations

A few limitations are encountered in this study. Firstly, only 246 EFL instructors who work in prep schools of state and private universities in Turkey are eligible to participate. Hence, the generalization of the findings from this study may pose challenges. Secondly, the study is confined to a descriptive research design which consists of a demographic background and a 24-item questionnaire adapted from Teclehaimanot and Hickman (2011). The third limitation is that the results are gathered from EFL instructors in state and private universities. Thus, the extent to which teachers at various levels of education interact with their pupils through LMS is not revealed in

this study. Finally, the results encompass the practices of EFL instructors regarding their interaction on LMSs. In other words, the study's scope is confined to the experiences of EFL instructors not learners.

2. RELATED LITERATURE

There are two major sections in this chapter. The first provides a theoretical framework for the study by aiding in the comprehension of essential concepts such as the definition of interaction, the importance of interaction, interaction in the classroom, interaction in EFL classes, technology in FL learning, the relationship between technology and interaction, LMSs, the place of LMSs in FL education, support of LMSs in interaction in FL classrooms and instructors' knowledge of the use of LMSs as a communication tool. The second section discusses the relevant literature on these concepts.

2.1. Theoretical Framework

This section is separated into ten sections. In the first place, diverse definitions of interaction are presented. Secondly, how important interaction in human life is stated. After that, the importance of interaction between teachers and students in the classroom is touched upon. Fourth, the significance of interaction in language classes is expounded. Fifth, the role of technology in the process of learning a FL is mentioned. Besides that, whether there is a relationship between the use of technology and language learning is discussed. In the seventh section, what LMSs are is explained. Following the explanations, the place of LMSs in the EFL context is revealed. Moreover, it is examined if LMSs help EFL teachers to communicate effectively with their students. Finally, how well EFL teachers use LMSs as communicative tools while teaching the target language will be explained.

2.1.1. Interaction

In the simplest terms, interactions are mutual actions in which a minimum of two objects are involved (Wagner, 1994), and each person's demeanor is a reaction to the other's demeanor (Reis & Wheeler, 1991).

Interaction may be defined as situations where at least two people are physically present in each other's reaction existence (Goffman, 1983). Cerulo (2009) defines interaction as the core of microsociology since people respond and react according to each other's actions. Papaefthymiou-Lytra (1988) defines interaction as an action that allows students to master the language when they focus on the information they want to convey and listen effectively to what is said. Interaction also requires social skills to make it satisfactory, people must have these necessary skills (Nezlek et al., 2002). Interaction is also an exchange in which individuals mold each other's thoughts (Frith & Wolpert, 2003). In addition, interaction is one of the most fundamental types of human behavior, and it must rely on the same neurophysiological and cognitive processes as other types of human actions (Argyle, 2017). Moreover, Hughes (1971) states that interaction is the center of organizational life, where people form routines, procedures work, and customers buy goods and services. From a different point of view, the term "interaction" refers to students' interactions with the course materials, their classmates, their teacher, and the course's technological resources (Thurmond, 2003).

2.1.2. Interaction for Human Beings

It would be precise to say that social interaction greatly impacts human health both physiologically and psychologically. First, different kinds of social interactions help maintain people's mental health, reduce the likelihood of aberrant actions, and regulate human physiology (McGuire & Raleigh, 1986). There are many cases proving that impaired mental state, illusions, and hallucinations are seen in individuals in the decrease in social interaction due to severe isolation (Shultz, 1965). In addition to these, social integration of individuals can provide information about the life span of individuals by contributing to the formation of a sense of belonging to the society in which they live and to be more attached to life (Berkman et al., 2000). Furthermore, solitude, well-being, and despair may be predicted 30

years later based on the amount and quality of social interaction that one has early in life (Hall, 2019). The more meaningfully people communicate with each other, the less loneliness they feel (Wheeler et al., 1983). Older people living in the community experience more life satisfaction and less loneliness when they engage in social interaction for more than two weeks (Nezlek et al., 2002). In addition, interactions with companions are quite important in fulfilling the emotional desires of senior citizens (Donnelly & MacEntee, 2012). Secondly, social interactivity keeps people's minds active and enhances cognitive performance (Ybarra et al., 2008). Likewise, kids are able to draw basic logical conclusions thanks to social connections (Roazzi & Bryant, 1998). In addition to the effects of interaction on human health, it also has a social dimension. Social interaction also forms a sense of belonging in individuals towards their society (van Aalst, 2009). Moreover, community knowledge is generated by thinking about what would be best for everyone, identifying defects, giving constructive feedback, and always looking for better solutions to problems. Only the members of society interacting with each other through various forms of communication can spread this new information (Zhang et al., 2007).

2.1.3. Types of Interaction

The concept of interaction has been divided into a variety of types by different experts over time. Moore (1989) determined three types of interaction: learner-content interaction, learner-instructor interaction, and learner-learner interaction. He also stated that this distinction helps to solve conflicts among instructors who utilize various technological tools in teaching. Although Moore's types of interaction are valid for technology-supported learning environments, they ignore the fact that learners must communicate with the technological device itself (Hillman et al., 1994). For this reason, Hillman added another type of interaction which is called learner-interface interaction over Moore's. Moller (1998) argued that asynchronous remote education would replace traditional education as it

was more practical, and she claimed that there should be three different online communities: academic, intellectual, and interpersonal. The interaction takes place between learners and instructors in the academic community. While there is communication among the learner and peers or groups in the intellectual community, support from the other community members is important in the interpersonal community (Moller, 1998). On the other hand, Hirumi (2006) divides planned e-learning interactions into three levels: learner-self interactions (Level 1), learner-human and learner-non-human interactions (Level 2), and learner-learning interactions (Level 3). Sutton (2000) introduced the fifth kind of interaction, called vicarious interaction, which Moore (1989) and Hillman et al. (1994) had not taken into consideration before. It is a type of interaction where a student analyses the interaction between a student and a teacher or between two students (Sutton, 2000). In short, as time passes and technology and online learning are integrated into the education system, different types of interaction have been identified.

2.1.4. Interaction in Education

Berge (1999) defines interaction as a mutual dialogue between two or more individuals in a classroom setting aiming at instructional fulfillment or social relationship development. In another definition, interaction is a two-way, mutually beneficial swap of information that occurs in real time between the learner and the educational system (Merrill et al., 1991). According to Moore (1989), interactivity is a process happening in three diverse ways, from learner to subject, from learner to expert, and from learner to learner. Interactive transactions, which positively contribute to learning, are required to gain knowledge through studying (Parker & Parker, 2013). The interactivity between instructors and learners is a dual process in which learners shape instructors' demeanors to a greater extent (Brophy & Good, 1974). The term "interaction" refers to how students interplay with the course material, their classmates, the teacher, and any technological

platforms that are being utilized (Thurmond, 2003). Sims (1999) describes the term "interactivity" in computer-based learning as superior learning practice, greater student engagement, and growing enthusiasm and desire. Furthermore, regarding education, communication makes computer platforms what they are (Swan, 2003).

Reciprocal actions have countless advantages in the learning and teaching processes. To begin with, the idea that social intercourse is crucial for cognitive growth is supported by several pieces of testimonies. The social connections within a specific collaborative group and the technological tools employed allow mental processes to function (Hutchins, 1995). Also, pupils' cognitive learning is strongly affected by the intercommunication among group members collaborating on classroom exercises (Sharan, 1980). Similarly, teamwork and interplay among students and between students and instructors keep learners in virtual learning platforms and push them to attain greater levels of cognitive accomplishment (Lee et al., 2004). Students participate in the learning cycle through communication, more especially in design, problem-solution, logic, judgment, and assessment mechanisms requiring cognition to work (Kearsley & Shniederman, 1998). Secondly, it can be seen that interactivity in education has constructive impacts on the learning process. When one of Moore's three recommended interactivity types (learner-content, learner-instructor, and learner-learner interaction) is to a greater extent, learning becomes intense and purposeful (Miyazoe & Anderson, 2010). Moreover, students talk about their concerns with their mentors placidly and gain the most from their education if there is the greatest level of social existence and manners of interaction similarity between mentors and students (Erickson, 1975). Besides, directed communication promotes learning in a variety of ways, including practical skills and limited quantifiable attitudes like tenacity, participation, and enjoyment (Plowman & Stephen, 2007). Third, learners can show different accomplishments when various cooperative communication models are used in education (Webb, 1982). Interaction occurs between the learner and the

learner's surroundings to alter pupils and help them come closer to accomplishing their ambitions (Wagner, 1994). In addition, learners must communicate with each other for the utmost success, sociability, and healthy growth in terms of gender identity, perspectives, and attitudes (Johnson, 1981). Fourth, when there is no communication in the classroom, education devolves into the transmission of information, and meaningful learning, critical analysis, and learning verification sequence are completely absent (Garrison & Shale, 1990). Although it may not always be directly linked to academic learning, social contact between learners and instructors and between learners themselves may influence the learning atmosphere for the better or worse (Gilbert & Moore, 1998). Finally, the impacts of mutual social influences are also valid regarding evaluation. The main source of the talents of individuals who are triumphant in an IQ test and are labeled as "talented" is actually the intercommunication they have with the examiners and the technological device of the test. Furthermore, increasing the frequency of instantaneous reciprocal reactions between students and educators can increase the opportunities for formative assessment, a project-based and collaborative type of assessment (Anderson, 2004).

2.1.5. Interactivity in Language Classes

The value of classroom communication in EFL settings is emphasized by Allwright, who asserts that it is a fundamental component of FL classroom discipline (1984). The more communication in the classroom, the more quickly and readily EFL students will pick up the target language (Brock, 1986). According to Long's Interaction Hypothesis (1985), the creation of input which is beneficial for learning a second language is facilitated by the agreements on meaning in oral conversations. Vygotsky (1986) suggests that interactions facilitated by language encourage the continual cognitive process of internalizing language. In a classroom setting, sensible interaction affects language input, output, the learning environment, criticism made by other learners, and involvement in classroom activities that support the

efficiency of language acquisition and proficiency (Weizheng, 2019). Mackey (1999) contends that teachers must provide interactivity in language classes to encourage the agreement and creation of meaning in the second language. For L2 learners, unified negotiating and shared work are key to their language development and personal growth in the classroom (Yu, 2008).

2.1.6. Interaction on Distance Learning

The way that students and educators come together, connect, and communicate with one another on digital platforms is one of the most popular methods to distinguish online learning from conventional education (Lowenthal, 2022), and this kind of communication has numerous impacts on learning. Any digital learning platform's capability to facilitate learning depends heavily on interaction (Muirhead & Juwah, 2004). Distance education offers far more opportunities for communication, and the learning process will be more rewarding for the learners if the right method of interaction is used. (Bouhnik & Marcus, 2006). Three elements are crucial to the success of online courses and learning: an organized and cogent course framework, a regular and helpful instructor-learner interaction, and a fruitful and engaging dialogue (Swan, 2001). Reciprocal actions are crucial for many sorts of learning, are essential for educational fulfillment, and help to keep distance learning students motivated (King & Doerfert, 1996). Each person may evaluate the subject taught or a specific issue from numerous angles, for example, those of their fellow participants, through active engagement, creating an incredibly rich learning environment (Harasim, 1989). When it comes to televised education, interactivity and crystal-clear audio and visual broadcasting impact the learning process in a good way and satisfy students (Hackman & Walker, 1990). In addition, computer conferencing platforms allow for communication that opens up new possibilities for controlling and engaging in education that weren't possible with traditional face-to-face and remote learning (Trentin, 1998).

2.1.7. Learning Management Systems

A Learning Management System is a type of software or an internet-based platform that has become a potent tool for managing an e-learning environment (Srichanyachon, 2014). Likewise, Hall (2003) describes LMS as a software product that operates the management of all academic events. According to Sejzi and Aris's definition, LMS links learners with learning materials by using a stable way (2013). Basically, an LMS is software that automates the managing, recording, and reporting of education, creating, maintaining, and delivering online courses as well as enrollment of students (Dagger et al., 2007; Simanullang and Rajagukguk, 2020). In addition, it is an important asset (Walker et al., 2016), a computer program that uses various presentation, evaluation, interaction, and administration tools to help students learn (Ellis & Calvo, 2007). Also, LMSs are the core of blended learning, enabling students to access many educational materials online and supporting the traditional learning environment where students use their books and interact one-on-one with their teachers (Unwin et al., 2010). In addition, LMS refers to digital programs that allow educators to assign different activities, interact with students, promote dialogue exchange in the classroom, and deliver course materials (Levy & Stockwell, 2013). Finally, LMSs are programs that allow individuals to use information technologies of e-education to accomplish their objectives (Erguzen, 2012b).

2.1.7.1. Advantages of Learning Management Systems

There are several advantages of those web-based learning platforms since they are accessible at all times and in all places, provide asynchronous communication besides student collaboration, offer new learning strategies for learners, and make learning easier, freer, and more fascinating (Capper, 2001; Kraveva et al., 2019). LMSs make online learning efficient because they are used to control school curricula, educational materials, and assessment tools (Srichanyachon, 2014). Activities that make the delivery of resources

and updates related to the course more efficient in the LMS are reckoned to be the most useful by teachers and students (Lonn & Teasley, 2009). Furthermore, teachers are able to use various teaching methods and techniques that can meet the needs of their students have different learning styles through LMSs (Islam & Azad, 2015). Moreover, LMSs are very handy for classrooms comprising a large number of students (Porter, 2011). The benefits of LMSs can also be seen in teaching and evaluation of skills. Teachers are more likely to provide online feedback to students' writing assignments since LMSs are more widely used. There are several reasons teachers may opt to provide feedback through an LMS instead of giving feedback in a traditional way in any course, which are worries about handwriting readability and a desire to use less paper (Laflen & Smith, 2017). Besides their educational benefits, they also have administrative benefits. LMSs are created to help schools and other institutions plan and manage their administrative duties (Esther, 2008). Finally, universities utilize these digital platforms to not waste time and money (Morgan, 2003).

2.1.7.2. Advantages of Learning Management Systems on Classroom Interaction

Students taking distance education courses can participate in the personal interaction needed for successful mediated learning thanks to interactive online platforms (Hackman & Walker, 1990). Direct user-to-user interaction which may be done synchronously or asynchronously via messages, audio or video conversations, written posts, or videos is now possible thanks to the Web 2.0 platforms. As a result of these advancements, teachers and students now have greater freedom in interacting with course content (Sokolik, 2014) and distance education students can slightly feel depressed for their longing for face-to-face conversations and seeing their classmates or teachers (Palloff & Pratt, 2007). As long as university students have access to an internet browser, they may contact the relevant parts of the system whenever and wherever they choose (Assaf Alfadly, 2013). Students

may swiftly and easily interact with their instructor and receive the assistance they require (Kraleva et al., 2019). Also, sending written messages while communicating online is a great force because it fosters the feeling of privacy, encourages learners to think more carefully about what they say, and liberates them from saying things they would not attend in person (Palloff & Pratt, 2007). Similarly, Conrad and Donaldson (2004) assert that LMSs facilitate asynchronous interaction which provides an opportunity to think before responding, enables both teachers and students to interact during their peak mental states, and ultimately leads to more profound thinking. In addition, the LMS has a role in forming learners' social identities and networks. By reading other learners' comments and posts on the LMS, they are likely to strike up some kind of relationship with anybody who seems to be linked to them. In this way, they can have a mutual appreciation for one another's tastes, preferences, and viewpoints (Dang & Robertson, 2010). Moreover, LMSs can be utilized to facilitate cross-generational interaction, the social contact between older and younger teachers with students, by improving the understanding between different generations, and promoting the transfer of knowledge and skills (Lyashenko & Frolova, 2014). Furthermore, teachers' communication with students and their families via a LMS has positive effects on these three types of communication: signing in to the platform, sharing daily pedagogical and instructional information, and messaging coworkers (Blau & Hameirie, 2010). Due to students' heavy reliance on LMS tools for material accessibility and meaningful communication, student-to-student communication has a favorable impact on learning outcomes (Costley et al., 2022). College students' use of technology for academic purposes, their learning methods, and learning outcomes like social, pragmatic, and academic competency are positively correlated (Chen et al., 2010). Last but not least, students' participation in digital communicative activities like chats and discussion boards has a powerful impact on the development of students' cognition. Learning via discussion tools on virtual educational platforms may be

described as inventive cognitive processes in which students exchange, critique, extend, or improve ideas through peer cooperation (Delaney et al., 2019).

2.1.8. Types of Learning Management Systems

2.1.8.1. Open-source LMSs

Open-source LMSs are the systems which universities or some organizations produce LMS software and present their source codes to users without any cost (Erguzen, 2012a). They are licensed freely, meaning they are not only cost-free, but users also have complete freedom to use them (Kimmons et al., 2019). These systems first gained popularity among universities and colleges since they could easily obtain the source code, modify it to fit their needs, and create their unique custom LMS systems (Turnbull et al., 2019). The initial license must not be altered in any way while changing the source code (Kasim & Khalid, 2016). According to Young (2004), everybody can utilize open-source programs, but there must be some factors that should be considered, such as creating a society, having a shared description of open source, funding for no-cost software, promoting the use of open-source programs in schools, and having good professional connections with businesses. All these factors are necessary for open-source systems to be applied well (Young, 2004, as cited in Koohang & Harman, 2005). Among all open-source LMSs, Moodle has approximately 100,000 enrolled users in 229 countries, making it likely the most widely used open-source LMS today (Turnbull et al., 2019).

The open-source LMS model has several standards and ideals that protect the unity of this platform. These are the ten issues that the self-organized LMS contributors generally agree upon: no-cost dissemination, source code provision, works' revision, source code's unification belonging to the programmer, no racial or ethnic prejudice, no preference for certain

professions, license dissemination, non – particular license for goods, non-limiting license for additional programs, and non-technological license (Koohang & Harman, 2005).

2.1.8.2. Commercial Learning Management Systems

This type of LMS requires educational institutions to enroll or authorize its unique code before using the functions of this digital learning platform (Kimmons et al., 2019). There are two different types of hosts for commercial LMSs: server-based and cloud-based. While the server-based LMS keeps the compilations in the institution's server and may be adjusted depending on the LMS, the cloud-based LMS stores the input online; therefore, using the platform and obtaining the materials require internet connection (Kasim & Khalid, 2016). As providers address schools without the resources or staff to run their on-premises hosting operations, it appears to be a tendency towards online-storage LMSs (Turnbull et al., 2019).

A few aspects make proprietary LMSs more appealing than open-source LMSs. Firstly, they are created by businesses with experience in the development and distribution of digital learning programs (Turnbull et al., 2019). Secondly, proprietary LMSs cater to utilities and ongoing support for major educational institutions, which ensures stable functioning (Pireva et al., 2015). Proprietary LMSs are appropriate for firms which are not specialized in computer technology, have no intention to support open-source systems, and have adequate financial resources (Ülker & Yılmaz, 2016).

2.1.8.3. Self-developed Learning Management Systems

A number of organizations, particularly Nordic organizations, have a preference for systems that they have designed. They seek to create solutions to serve their unique demands since they find commercial LMSs to be costly and complicated. They sought systems that were easy to operate and did not

cost a lot of money, as well as ones that could manage ongoing registration and work with student administration and financial systems (Paulsen, 2003). It is also crucial for institutions to build their own LMSs since the viewpoints of the institution's instructors and the university's demands and requirements vary from others' opinions regarding distance learning (Grob et al., 2004).

The market share of in-house built LMSs, which made up 24.4% of for-profit organizations in 2007, was higher than the most widely used open-source LMSs today (Martinez & Jagannathan, 2008). On the other hand, Davis et al. (2009) revealed that the proportion of self-developed LMS software employed by institutions of all sizes has dramatically decreased. This is due to a number of factors, including the cost and responsibilities of building a tailored LMS and the adaptability of commercial LMSs to institutional requirements.

2.1.8.4. Corporate Learning Management Systems

Corporate LMS platforms comprise enrollment and administration of classroom teaching in addition to the distribution and administration of online education. A number of corporate LMS platforms provide e-business and HR-related activities such as adherence to laws, expertise, achievement, and strategies to recruit and retain employees. Because it is not expected that a teacher would be present at all times during online learning, corporate LMSs place more of an emphasis on the administration of autonomous online education. Institutions seeking an LMS might consider adopting an LMS which largely focuses on a different industry. For remote education programs which sell courses, corporate LMS may be quite valuable (McIntosh, 2020).

2.1.8.5. Other Types of Learning Management Systems

Additional LMSs present due to the wide variety of them available on the market. To begin with, it is possible to mention the existence of Learning

Content Management Systems (LCMSs). LMS focuses on students and keeping track, whereas LCMSs are concerned with the course materials and the creation and maintenance of courses. An archival database usually stores course materials as study items. Descriptions and labels of the items enable the course creators and others to remember and reuse them. Since the services offered by LMS companies now include tools features for creating content, the difference between LMS and LCMS blurs (McIntosh, 2020). Secondly, talent management systems (TMSs), which are a component of human resource information systems, are used by several corporations to implement their talent management plans. Among the many facets of TMSs are HR functions including hiring, evaluating employees' performances, handing them pay and benefits, maintaining them, and helping them advance in their careers. TMSs are also called as human capital management and workforce productivity (McIntosh, 2020).

Numerous colleges and universities focus on open and online education (Shin & Kang, 2015). Numerous colleges and universities have worked to create mobile learning management systems (MLMSs), which offer identical functionalities to a regular PC-based LMS but through mobile devices, in order to better meet the needs of the expanding number of mobile users on the campus and enhance their accessibility to learning materials (Han & Shin, 2016). MLMSs allow students to post homework, collaborate with peers, view learning materials and exam results, and share study items with their peers or teachers (Han & Shin, 2016) besides enrolling for courses, reviewing timetables, and keeping track of their own attendance (Joo et al., 2016). MLMSs have the opportunity to provide educational institutions with advantages, such as higher participation and a bigger student body since students can engage from a greater variety of places (Lowenthal, 2010) at any moment (Joo et al., 2016).

2.1.9. Teachers' Perceptions of Interaction

There are a variety of views held by educators concerning the communication that takes place in the classroom. Firstly, the majority of instructors feel that teacher-student communication in the classroom results in several advantages for pupils. Especially, instructors are in agreement that the teacher-student connection fosters a friendly atmosphere in the classroom, encourages pupils to speak out, and promotes more class participation (Nguyen & Phuong, 2017). Also, classroom interaction as a whole has the potential to keep students engaged and attentive even if they are not actively participating (Fulford & Zhang, 1993). Another view is that students are highly eager to speak out upon feeling at ease, and instructors think this is the case when they properly integrate humor into communicative classroom activities. (Lovorn & Holaway, 2015). Not only instructors but also students mainly have a good impression of task-based education (Kasap, 2005). Furthermore, teachers strongly believe that peer support would lead to considerable learning and pupils can improve turn-taking abilities as a result of classroom-based interactions. Conversely, teachers are not convinced that pupils talk more when they have to vie for attention and speaking opportunities (Beck & Dennis, 1997). Secondly, pupils' interactive relations with instructors may vary as a result of instructors' perceptions of the personality traits of pupils. Instructors approach pupils differently based on their perceptions of how smart or how dim they are. Instructors show favoritism toward the pupils they believe to be smart by interacting positively with them more often (Sherry et al., 1980). Finally, teachers' statements and classroom activities concerning CLT appear to be conflicting with one another. Instructors share a set of ideas that, for the most part, run counter to the tenets of Communicative Language Teaching (CLT). The activities they use in the classroom are also inconsistent with either their declared beliefs or the tenets of the CLT (Rahman et al., 2018). Even though most teachers have a good understanding of CLT principles, they are unable to implement them in their classrooms due to factors like cultural differences, crowded classrooms, the incongruence between the

education system and real context, and instructors' limited fluency in the target language (Ashoori Tootkaboni, 2019). Similarly, instructors utilize traditional and controlled activities in communicative classes as a result of the perception that instructors ought to be fully responsible for the learning and that pupils must play a passive role in the classroom, as well as the notion that instructors must teach pupils English to prepare them for the examinations (Taguchi, 2005).

2.1.9.1. Teachers' Perceptions of Interaction via LMSs

Teachers generally have positive perceptions towards the use of LMSs in teaching, and they are satisfied with their experience. The efficacy of user-friendliness of an e-learning platform depends not only on combining different media and providing learners with prompt and appropriate replies efficiently but also enabling a potent interactive environment (Pituch & Lee, 2006). It is also thought that the success of these online platforms relies less on information technology and more on the teacher's skill in deploying it (Collis, 1995). Instructors believe that online learning platforms are superior than conventional classrooms in terms of the quality of student-instructor interaction since students only log in when they are totally prepared to communicate and there are many different aspects in the meeting setting such as chats, assignments, and news (McIsaac et al., 1999).

In particular, educators agree that Google Classroom, one of the LMSs, has the potential to improve classroom communication, ultimately leading to greater scientific proficiency (Hidayat et al., 2019). Teachers often see Google Classroom as a tool that encourages student participation through discussion forums, exchanging ideas regarding tasks and projects, logging discussion responses as a means of evaluation, and notifications about tasks that students must complete (Harjanto & Sumarni, 2019).

On the other hand, because instructors primarily use Moodle, the LMS, as a material archive rather than using its interactive capabilities, teachers may form an unfavorable impression of LMSs (Goh et al., 2014). Besides, both instructors and learners think the LMS is more valuable as a repository for learning resources than testing or discussion platforms (Emelyanova & Voronina, 2014).

2.2. Literature Review

A concise overview of the relevant research is provided in this section. The first part provides a summary of research about interactive transactions among instructors and learners that occur on LMSs. Following that, research that pertain to the communication between instructors and learners via the use of LMSs in Turkish EFL settings are provided. The current part concludes by examining the impact of teachers' demographic characteristics on their utilization of LMSs.

2.2.1. Instructor-Student Interaction via LMSs

Numerous studies demonstrate that LMSs stimulate communication in the triangle of learner-teacher-school and cooperation. For instance, Holmes and Prieto-Rodriguez (2018) aimed to find out how teacher training personnel and students assess the usefulness of LMS features in their courses and faculty members' and students' perspectives on the approachability and communication opportunities of the LMS. The data were collected from 46 personnel and 470 graduate and undergraduate students who completed a Likert-style survey. The teachers were also asked to take part in an interview after completing the survey. The results indicated that there were disparities in how students and teachers thought about how easy it was to access online materials, with students saying that it helped them learn more than the teachers did. However, both sides had the same ideas about how well LMS tools worked to make interaction possible. Another research set out to identify how different aspects of a new LMS affected instructors' attitudes

toward online education. This qualitative research employed a web-based procedure to gather open-ended answers from nineteen instructors utilizing the newly implemented LMS in their classrooms. The capacity to reach out to students via many ways of interaction was highlighted as a concrete improvement in classroom teaching (Walker et al., 2016). Snoussi (2019) analyzed the prevalence of LMSs through semi-structured interviews with the participation of 54 students from private universities in the United Arab Emirates. The findings showed that all the participants valued LMS as an interactive platform that promoted faculty-student interaction and cooperation. In addition, they believed that the widespread availability of tools like emails, discussion forums, and notifications made it possible to maintain continual and frequent interactive contact. Moreover, Khlaisang and Songkram's (2019) study aimed to investigate what made a virtual learning platform successful and how it might be used to improve various 21st-century abilities among university students in the Association of Southeast Asian Nations society. In this research, a 3D online environment, OpenSimulator was combined with Moodle the LMS to better suit the students' requirements, and collected data from 400 professors and a cohort of 90 university students from five Southeast Asian countries. The data were collected from homework, group tasks, and surveys for professors. The results were evaluated through the dependent t-test and exploratory factor analysis to discover the most important aspects included in the design of a virtual learning platform. They concluded that the online learning platform which combined Moodle and OpenSimulator fostered cooperation, sharing of information, and discovering new things. More importantly, students could collaborate on group projects via interactive tools in a 3D online learning system which promoted a social learning environment and real-time interaction.

Studies show that gamification when combined with LMSs has the potential to provide favorable effects regarding communication. Ferianda et al. (2018) suggested gamification as a strategy to encourage communication

between learners and the system in order to maximize the value of the online learning environment. Badges, scores, a scoreboard, and prizes were the features of gamification that the researchers integrated into IDEA, a university's own LMS created by the IT department to facilitate education in Indonesia. The study conducted with 42 students had five stages: planning, gathering information, applying gamification, evaluating the effects of gamification, and analyzing the results. After analyzing a five-level Likert Technology Acceptance Model survey, the results demonstrated that gamification's usage in an LMS positively influenced reciprocal actions. Similarly, Azmi and Singh (2015) aimed to prove that elevating power and efficacy, employing technology, and incorporating game principles into the usage of LMSs may improve the implementation of these online platforms and pique students' curiosity in their regular schoolwork by setting up a friendly rivalry. They created a learning platform that was as easy to use as possible and contained three separate gaming dynamics like leveling up, avatars and a leaderboard based on the Microsoft SharePoint platform. As a result, the platform's integrated gaming components made using the LMS more dynamic in terms of communication and captivating for learners.

According to research on learners' perceptions, they consider social networking websites to be more fruitful than LMSs. For example, Thoms and Eryilmaz (2014) carried out a quasi-field experiment evaluating the efficacy of an alternate e-learning system for distant education built on a well-known social media program. The system was tested at a regional public institution in the United States. Two student groups using the specialized online social media program were compared to two student groups utilizing a conventional LMS. According to the results, much more communicative relations among learners were observed in the classes that utilized the online social media program. In these classes, learners felt a greater sense of belonging, connection, and pleasure, which are crucial for academic achievement. In addition, Deng and Tavares (2013) put an effort to better understand what drove students to participate and what held them back

from participating in online conversations using the platforms Moodle and Facebook. Fourteen senior students studying at a four-year university in Hong Kong participated in the research. Interviews were used as the primary method of data gathering. The researchers concluded that Facebook's quick and natural communication environment encouraged teacher candidates to communicate while Moodle's academic tone and complicated design distanced them from using it to talk on topics unrelated to courses. Emelyanova and Voronina's (2014) research sought to examine how students and instructors see and use LMSs 109 B.A. and M.A. students, and 23 instructors from various Russian universities participated. The data were gathered by using two distinct surveys with three-point scale items. The findings revealed that all students do not prefer to utilize LMS with regard to interaction tools. Comparatively, ninety-two percent of participants said that they utilize e-mail or social media platforms, which are more beneficial for interaction. Conde et al. (2014) investigated the potential benefits and cons of using Web 2.0 technologies in conventional classroom settings. They conducted two pilot studies to test out two potential avenues for integrating Web 2.0 technologies. While some students utilized Twitter and hashtags for discussions, solving problems, and in-person meetings, the other students used Web 2.0 tools such as Flickr and WordPress were presented as widgets. The results demonstrated that students had to be pushed to make use of the interactive tools of the LMS like wikis and forums, but the usage of additional technologies like Twitter encouraged them to participate extensively. It was also clear from the results that the students interacted with others in the field who had an interest in the same topics.

Research indicates that there can be discrepancies about how helpful LMSs are. For instance, Islam and Azad (2015) carried out a study with 185 faculty members and 249 students at a Finnish university to get their perspectives on the institution's LMS. According to the findings of ANOVA, students had more favorable opinions than teachers do on the usability, utility, accessibility, dependability, and congruity of their LMS. Besides,

surveying instructors and students at a big institution in Midwest America to see how they used and felt about Sakai the LMS, which was used by the institution for years, to supplement conventional classroom instruction was the goal of Lonn and Teasley's (2009) study. They examined survey responses spanning two years and focused on various LMS applications and usage. They also compared the survey responses with the cumulative user records to determine whether there were any discrepancies between the two. According to the results, the majority of teachers selected effective interaction as the most beneficial advantage of utilizing technology. Moreover, teachers diverged from students by more commonly ranking interactive tasks important upon questioning, particularly about Sakai. Still, a small number of teachers and learners thought these tasks were not worthwhile.

Evidence from several studies suggests that learners may not always benefit from utilizing an LMS as a communication tool. Firstly, Costley et al. (2022) investigated how constant utilization of an LMS modulated the link between learner-content, learner-instructor, and learner-learner interaction and learner achievements. A total of 362 undergraduates from a South Korean university who were required to attend online courses as part of their major were given questionnaires that gathered data on the students' LMS usage, oral contacts, and results. The important finding of the study was that the favorable association between inter-student communication and student achievement was highly affected by the usage of LMS on a regular basis. On the other hand, the most striking result was that students' ability to engage with one another was negatively affected by the widespread usage of LMS. This was because students had access to messaging apps that provided a parallel instructional purpose, limiting the advantages of participating via the LMS. The research conducted by Miguel et al. (2011) attempted to reveal whether or not learners' communicative activities in the LMS were correlated with their grades. An examination of two years' worth of data from virtual and on-campus MA programs at a university in Madrid by using Moodle LMS task records provided insight into this question. A reverse stepwise

regression analysis was carried out to assess the impact of the various communicative tasks on student achievement. According to the results, learners' engagement in the LMS should have affected their educational achievement; however, the data indicated no correlation in face-to-face LMS-supported courses or asynchronous virtual classrooms. Furthermore, Denkci Akkaş (2023) carried out descriptive research to understand online education students' opinions by evaluating the efficacy of the English course offered at a public higher educational institution in Istanbul. Advancity LMS served as the medium for the live and simultaneous delivery of the course materials. 121 freshmen participated in the research, and a 5-point Likert scale was used to gather the data, which was then analyzed in SPSS. According to the findings in terms of communication, most students felt that the available tools for writing and oral communication were inadequate compared to those for reading, listening, and grammar. In short, it became clear that the participant students did not notice any growth in their productive skills as a result of the online course provided on the LMS. On the other hand, the students were satisfied with the fact that they might ask their queries directly to their teachers via ALMS. In addition, a pilot project employing Moodle and the cooperative editor GREWPtool was conducted at a private university in North Cyprus by Cavus et al. (2006). The purpose of this project was to provide an online learning platform for the instruction of programming languages. A survey asking for opinions about online instruction was given to 36 sophomore students. The pilot research proved that the absence of teacher-student and peer-to-peer contact which characterizes an actual classroom was the most noticeable shortcoming of Moodle, although it was found to be effective and adequate on its own to provide the lecture materials. Thus, combining a cooperative educational tool with an LMS might increase its effectiveness.

According to the research results, the failure of educators to effectively utilize LMSs causes these online platforms to lose their usefulness. Annamalai et al. (2021) investigated how 203 online education learners in

Malaysia felt about and utilized LMSs by using the Technology Acceptance Model as a framework. The results revealed that there was an interaction gap between the teachers and the pupils. Providing outdated and inappropriate materials was one example of how poorly teachers handled the LMS. Furthermore, that course materials were still distributed via Microsoft Office programs caused students to express discontent about the lack of variety in interaction and antiquated approach to education. According to Ramayah's research, many schools utilized an LMS for online education; however, most teachers merely used it to post course materials and never engaged with students through the platform's social and communication tools. Teachers often used discussion boards in LMSs to spark class conversation between classmates and teachers, but the absence of instantaneous reactions in discussions prevented students and teachers from actively engaging with these digital platforms (as cited in Almarashdeh et al., 2010).

2.2.2. Instructor-Learner Interaction via LMSs in Turkish EFL Context

A substantial body of research reveal that LMS platforms provide student-student and student-teacher interaction in the Turkish EFL context regardless of time and place, satisfy students, and provide a comfortable environment for discussions. For example, Ozudogru and Simsek (2021) conducted a case study to elucidate the efficacy of the LMS called AYDEP and ascertain the opinions of prospective freshman teachers and their professors from the FOE about the use of the platform. The data were collected by utilizing a semi-structured interview form with 10 questions at a public institution in Kırşehir and evaluated through a procedure known as content analysis. The findings revealed that prospective teachers followed alerts, read announcements, and sent messages for communication, while lecturers interacted with others by posting news, sending messages, and reading recommendations. In addition, the platform was embraced by lecturers since it allowed for instantaneous interaction and freedom from geographical constraints. In the research of Karaman et al. (2009), the

perceptions of students about LMS-based instructional programs were examined. For this reason, four courses were offered to 100 CITED students at a state university in Erzurum via Moodle, and the participants took part in tasks, received live instruction, exchanged resources, and received outside-of-class assistance via forum discussions, wikis, visually and non-verbally supplemented lecture summaries and tests for 10 weeks. The participants' views gathered via a questionnaire were examined and explained in light of the findings of the class observations. The result of the research revealed that Moodle provided comfortable and multi-communication convenience. It was also concluded that activities should be well planned for the active participation of students, and the online learning environment should be designed in which students could democratically express their opinions. Mısırlı (2007) surveyed learners about their experiences communicating in an internet-supported setting and their contentment and feelings on the internet and computers by utilizing the free and open-source LMS, Moodle. Fifty-five junior students in the CITED and five instructors in the FOE at Balıkesir University made up the study's population. The data was collected through learner questionnaires about the efficacy of online-supported instruction and instructor interview forms. Based on the findings, learners' views on the internet and computers were found to be highly favorable. Learners' happiness with the course as a whole and ability to communicate with each other through the LMS were both rated as neutral, but learners reported the greatest contentment on their ability to interact with their teachers via electronic mail. On the other hand, every participant instructor was open to implementing digital learning platforms and creating their classes in a web-based learning setting. They highlighted that discussion forums, interactive tasks, and games were all crucial and must-use components of Moodle-based instruction. Çınar et al. (2022) sought to ascertain the efficacy of the usage of gamification tools and LMSs in virtual English classes. Their research participants were secondary school students in İstanbul who formed the control group of 44 and the experiment group of 47. The researchers used

both qualitative and quantitative methods, and the participants were given a pre-test and post-test as part of the research. In addition, 10 students from the experimental group chosen via the criteria sampling approach were interviewed in semi-structured formats after the post-test. The results indicated that students' enthusiasm for and participation in the tasks increased with the help of gamification. In addition, the students in the experiment group who were taught the topic through gamification-embedded LMS were more engaged in class interaction than those in the control group. To conclude, it can be said that the games fostered teamwork and happiness because of their pleasant but competitive atmosphere.

Research shows that one of the most commonly used social networking websites, Facebook, has been employed as an LMS in educational institutions in Turkey. The goal of the research conducted by İşman and Albayrak (2014). was to learn what the students thought about employing Facebook for learning. A Facebook page for a subject was formed, and the difficulties of university students taking the course in Sakarya were addressed via the exchange of course materials, notifications, and reciprocal contact. Eight weeks later, 23 students were chosen randomly among the 161 participants in the course, and their opinions on the usefulness of the course's Facebook group were gathered via semi-structured interviews. The interaction-related findings of the research were that Facebook fostered interaction among learners, aided in communicating with the teacher, and offered an alternate method of contact for students who were uncomfortable with speaking to others in person. Moreover, Kalelioğlu's (2017) research investigated students' ideas about utilizing Facebook as an LMS for a particular class. The data collection tool was a survey consisting of 9 open-ended questions gauging the degree of fulfillment and understanding of 18 junior CITED students in Turkey. The results showed that the university students saw both types of real-time interaction in a favorable light. The rapid connection with their teachers and the conversations that took place on this website were especially valued by all of the participants.

2.2.3. Teachers' Demographic Variables and LMS Usage

Numerous studies have been published showing that gender, one of the demographic factors, has an impact on the utilization of LMSs. For instance, Abazi-Bexheti et al. (2018) examined the factors that promoted the utilization of Google Classroom activities, which served as the LMS of South East European University. The data comprised 937 observations, and this study adopted the Ordinary Least Square Regression model in order to probe Google Classroom implementation in this university. One of several results showed that female instructors use LMS more than male instructors, as measured by the number of pupils joined. Tena et al. (2016) conducted a study with 1302 lecturers from 6 diverse Andalusian higher education institutions, all at various levels, to discover how instructors utilized e-learning and gauge how satisfied they were with it. Through the use of questionnaires, the data were gathered and analyzed. The results indicated that female lecturers were more likely to employ a variety of synchronous and asynchronous communication technologies when compared to male lecturers despite the fact that male lecturers had more technical proficiency and capacity to utilize multiple interaction tools while teaching.

There have not been enough studies done to determine whether or not there is a correlation between the age of instructors and their adoption of LMS. The results of Alharbi and Drew's (2014) study, which was conducted by giving a questionnaire to 59 participants revealed that gender or age did not affect whether academics used LMSs, how simple they thought the systems were to use or how the systems were relevant to their jobs.

Although there is no research proving that neither age nor gender influences the utilization of LMSs, a study in the literature demonstrates that the position of instructors impacts whether or not they utilize these virtual learning platforms. Gautreau's (2011) purpose was to determine the aspects of motivation that faculty members thought significant to their individual choice to implement an LMS. Forty-two academicians with tenure and on the

path to tenure who were teaching at a four-year higher education institution in California constituted the participants of the research. In order to determine what prompted faculty members to include an LMS in their pedagogical practices, a needs assessment evaluation approach was used. The results indicated that neither age nor gender had a role in an academic member's choice to use an LMS. On the other hand, their willingness to use such online platforms depended on their tenure position.

Some researchers in the relevant literature search for signs that LMS use and teaching experience are connected to one another. Lin (2009) explored the acceptance and deployment of Moodle by individual instructors in the FOE at a university in Hong Kong. Nine instructors took part in the study and the researcher used two different methods to gather data such as an interview and a survey. She found that instructors with 5-10 years of experience were likely to spend more time and energy using the discussion forum features of Moodle than teachers who just started their careers or with more than 10 years of experience. Besides that, Cigdem & Topcu (2015) investigated the willingness of instructors who worked at a military-based vocational college in Turkey to use Moodle. An online survey was administered to the participants, and the findings were analyzed in SPSS by using the most relevant analysis techniques. 41.7% of the participants were instructors with 1-3 years of teaching experience; the instructors having more than 20 years of experience made up only 6.1% of the study. The researchers found that the number of years the instructors had been in the classroom correlated negatively and significantly with their likelihood of using Moodle.

Almost no research examines the relationship between demographic characteristics and the use of LMS in the Turkish context, but this study is the most comprehensive. Erdin & Uzun (2021) aimed to learn how well Turkish English teachers were adapting to new educational developments and whether or not teachers' perceptions of their own technological competence were influenced by demographic factors like gender, age, teaching

experience, institutional type (public vs. private), and the number of hours per week spent using technology. Two hundred seventy-three participants completed a survey in which they assessed their own technological competence in the 21st century for data collection. According to the findings, a correlation was found between the Turkish EFL teachers' technological competence and the amount of time they worked in technology settings and whether or not a public or private school employed them.

3. METHODOLOGY

This section provides an in-depth explanation of the research methodology which is broken down into five parts. In the first part, the research design used and its justification are detailed. Secondly, information is provided on the people who volunteered to take part in this research. The third part is the description of the scale as well as the questionnaire that was used to collect data. Then, the procedure part provides an overview of how this research was conducted. Finally, how and by what methods the data were analyzed is clarified.

3.1. Research Design

The research design employed in this study is descriptive since acquiring additional insights into the interactions between EFL instructors and their students through the use of LMSs is essential. According to Dulock (1993) descriptive research is characterized by not controlling or manipulating any variables, describing the phenomenon in the context in which it is typically observed, not starting with any predetermined hypotheses, and choosing study participants because they already have the relevant information or characteristics. Furthermore, Seliger and Shohamy (1989) state that descriptive research often involves quantitative methods. They also declare that descriptive research consists of five phases: research question formulation; participant selection; data collection strategy

formulation; data collection; and data analysis. Based on the explanations above, employing a descriptive research design for conducting the present study is suitable. Due to reaching a large number of participants around Turkey in a limited time and the Covid-19 pandemic, an online survey was used as the methodology to carry out the current descriptive study. Both the scale examining EFL teachers' interactions with their students through LMSs and the short questionnaire gathering participants' demographic information were merged and incorporated into a single online questionnaire in Google Forms.

3.2. Participants

The research participants were 246 English instructors employed at the Schools of Foreign Languages in various state and private universities in Turkey. There were 178 female participants, making up 72.4% of the total, while there were 68 male participants, making up 27.6% of the total. The participants' ages ranged from 23 to 69 years old, with the mean being almost 38 years old. Among all the age groups, the highest number of participants were between the ages of 31-40. While 227 of the instructors (92.3%) participating in the study were native speakers of Turkish, only 19 (7.7%) were native speakers of English. In addition, the range of answers for the participants' level of teaching experience was from 2 to 42 years, with 10 years of teaching experience being the most common response. The majority of the participants were those who had been teaching for 11-15 years. Furthermore, 101 participants (41.1%) were employed in state English preparatory schools whereas 145 (58.9%) were employed in private institutions. In terms of educational status, there were 81 instructors with B.A., 132 instructors with M.A., and 33 instructors with Ph.D. degrees. Slightly more than half of the participants were instructors who completed their master's degree. Regarding their administrative duty, the bulk of the instructors—192 or 78%—had no leading position in the educational institution. On the other hand, 54 (22%) were in charge of management

duties in the prep schools. Table 1 provides further demographic data about the study's participants.

Table 1. Demographic Information of the Participants

	Frequency	Percent	Mean
Gender			
Female	178	72.4	
Male	68	27.6	
Age			
<30	44	17.9	
31-40	121	49.2	37.97
41-50	55	22.4	
>51	26	10.6	
Native Language			
English (Native)	19	7.7	
Turkish (Non-Native)	227	92.3	
Teaching Experience in Years			
<5	30	12.2	
6-10	61	24.8	14.10
11-15	71	28.9	
16-20	31	12.6	
>20	53	21.5	
Type of University Worked			
State	101	41.1	
Private	145	58.9	
Educational Status			
B.A.	81	32.9	
M.A.	132	53.7	
Ph.D.	33	13.4	
Administrative Duty			
Yes	54	22.0	
No	192	78.0	

In addition, the amount of time that instructors spend teaching English each week is shown in Table 2. The hours they spent instructing varied from 4-30 hours per week with the mean of 19.01. Twenty-five

instructors (10.2%) worked less than 10 hours, 126 instructors (51.2%) worked 11-20 hours, and 95 instructors (38.6%) worked more than 20 hours per week. In terms of weekly face-to-face teaching hours, there were instructors who never taught in person and those who taught 30 hours in the classroom. Ninety-two participants (37.4%) taught English face-to-face fewer than 10 hours, 141 (57.3%) taught between 11-20 hours, and 13 (5.3%) taught beyond 20 hours. Lastly, 199 instructors (80.9%) taught English less than 10 hours a week online, while only four of them (1.6%) taught twenty hours or more. The rest (17.5%) taught students English remotely via online platforms for 11-20 hours a week.

Table 2. The Participants' Overall, Face-to-face and Online Weekly Teaching Hours

	Frequency	Percent	Mean
Weekly Teaching Hours			19.01
<10	25	10.2	
11-20	126	51.2	
>20	95	38.6	
Weekly Face-To-Face Teaching Hours			12.07
<10	92	37.4	
11-20	141	57.3	
>20	13	5.3	
Weekly Online Teaching Hours			7.05
<10	199	80.9	
11-20	43	17.5	
>20	4	1.6	

Furthermore, it was found that Moodle became the most favored used open-source LMS used by 36.6% of respondents. Following Moodle, the second most frequently used LMS was Google Classroom with 18% usage rate. Edmodo and Microsoft Teams ranked third with a 12% usage rate. Moreover, the 84.1% of the participating instructors' (207) preference was to sign in and utilize the LMS platform from their laptops.

3.3. Tools

For the aim of data collection, an online questionnaire consisting of two parts and prepared via Google Forms was used. Participants were first asked to fill out a demographics questionnaire that inquired about their gender, age, native language, years of teaching, type of university worked at, degree of education earned, administrative duties, number of weekly classes taught (both in-person and online), preferred LMS, and preferred device for accessing the LMS. Second, respondents were given a questionnaire adapted from Teclehaimanot and Hickman (2011). The questionnaire consisted of 24 items that investigated the various means through which instructors interact with their students using online LMSs. Using a 5-point Likert scale, participants were required, for each question, to remark on the frequency with which they utilized various modes of interaction when using the LMS ("Never", "Rarely", "Sometimes", "Often", "Always").

3.4. Procedure

An application was submitted to the Educational Sciences Ethics Committee at IMU at the onset of the research, and approval was obtained. After that, the link of the 24-item online questionnaire, which also includes a demographics section, was emailed to English instructors who work at the state or private English preparatory schools of universities all over Turkey. A personalized email was sent to every instructor to encourage them to take the questionnaire more seriously and increase their participation. At the beginning of the online questionnaire, the participants were provided with a short text informing them about the purpose and content of the study, the duration of the questionnaire, the study coordinator and her consultant, the voluntary nature of the study, and the confidentiality of the information. The data were collected in late 2021 and the first half of 2022.

3.5. Data Analysis

After the data were collected, they were imported into SPSS Statistics 21.0 for analysis. It was made sure that there were no missing data when entering the data into the program. First of all, the questionnaire items were subjected to validity and reliability testing. In order to determine whether or not the items on the questionnaire were valid, construct factor analysis was carried out. The varimax rotation was performed, and the % of variance for the scale was determined to be 65.19. In addition, the scale's reliability was assessed using Cronbach's Alpha analysis, and it was found to be .89. Moreover, intervals were determined for participants' ages, experience, in-class and online and overall teaching hours a week. After that, calculations were made to determine both the percentage and the frequency for every interval. Similarly, the frequency and percentage of gender, native tongue, sort of university worked, educational attainment, and administrative responsibility data were calculated.

Non-parametric tests including Kruskal-Wallis H and Mann-Whitney U tests were used for analyzing the data when the number of respondents was low; thus, a normal distribution could not be presumed for the data. Following the Kruskal-Wallis H test, Tamhane's T2 Post Hoc analysis was performed to understand between which groups the significant differences were observed. After the Mann-Whitney U test was conducted, the means were analyzed to determine which groups showed more significant differences. In contrast, One-way ANOVA and Independent Samples T-test of parametric tests were used for normally distributed data. While Tukey HSD and LSD Post Hoc analyses were used to determine the significant difference between the groups for which One-way ANOVA was performed, the mean scores were analyzed for the groups for which Independent Samples T-test was conducted.

4. RESULTS

The findings of the questionnaire were analyzed and presented here in light of the study's research questions. Firstly, the degree of interaction between EFL teachers in Turkey and their students when they use LMSs was explained. The second part explained whether the EFL instructors' demographic characteristics and weekly teaching hours affected their communication with their students through LMS.

4.1. The Level of FL Instructors' Interactions with Their Students via LMSs

The values in Appendix B show that EFL instructors' level of interaction with their students through LMSs is high, medium, and low. The first way EFL instructors communicated at a high level was giving feedback on students' academic work including assignments, tests, grades, and overall performance ($\bar{x}=4.25$). Additionally, instructors often uploaded course materials and files to the LMS platform ($\bar{x}=4.20$). Instructors stated that they often made announcements on the LMS platform ($\bar{x}=3.87$). They also expressed that they were often alerted either via email or the LMS platform when their students responded ($\bar{x}=3.82$). Sharing class timetables was another high level of interaction method with students for instructors ($\bar{x}=3.80$). Furthermore, instructors often sent their students periodic reminders about their tasks via LMSs ($\bar{x}=3.59$). Moreover, the usage of e-mails as a means of interaction with students was one of the ways that EFL instructors used most often ($\bar{x}=3.40$).

The findings reveal that EFL instructors working in English preparatory schools use some interaction channels with a medium frequency. For instance, they sometimes took advantage of the video conferencing options ($\bar{x}=3.34$). Also, instructors sometimes had students be informed about teacher posts as well as they were sometimes notified about students' responses on LMS ($\bar{x}=3.32$). Besides that, they benefited from the application of the LMS they used so that they could stay informed about the alerts from

their pupils ($\bar{x}=3.09$). Moreover, they communicated with their students by commenting on their students' posts on LMS ($\bar{x}=3.02$). Instructors claimed that they sometimes utilized reporting tools to monitor students' performance ($\bar{x}=2.99$). Furthermore, instructors declared that they sometimes sent personal messages to their students through the LMS ($\bar{x}=2.95$). The findings further showed that instructors sometimes utilized the live chat function of these online platforms ($\bar{x}=2.80$). Additionally, they expressed that they sometimes liked what their students had posted on the platform in order to show their appreciation ($\bar{x}=2.73$). Lastly, interactive games ($\bar{x}=2.63$) and to-do checklists ($\bar{x}=2.60$) were sometimes used by EFL instructors to track their pupils' progress.

According to the data in Appendix B, some interactive methods are preferred by instructors at a low level. First, the creation of polls to get insight into the perspectives of learners on a certain issue was rarely chosen as an interaction way by EFL instructors ($\bar{x}=2.42$). In addition, they said that they rarely contributed to the forums by creating discussion topics ($\bar{x}=2.34$). They further stated that they rarely gave badges when students succeeded ($\bar{x}=1.97$). According to the statistics, EFL instructors rarely made use of blogs to create an interactive environment between them and their students. Finally, it was clear that EFL instructors rarely preferred encouraging their students to register external blog links on LMS ($\bar{x}=1.94$), utilizing blogs as a collaborative assessment tool ($\bar{x}=1.86$), registering external blogs on LMS ($\bar{x}=1.83$), and adding blog entries on their class page on LMS ($\bar{x}=1.77$).

4.2. The Connection between the Interaction Levels and Demographic Characteristics of EFL Instructors

4.2.1. Gender

Gender was the first variable studied in connection to EFL instructors' use of LMSs for communication with their students. Table 3 shows that regarding the communication level of female and male instructors with their

students via LMSs, there is not a significant difference between the two independent variables ($p=.08$).

Table 3. Relationship between Gender and the Level of Interaction via LMSs (Independent Samples T-Test)

	Gender	N	Mean	Std. Deviation	t	Sig.
Mean Score of I-S Interaction via LMS	Female	178	2.98	.62	1.74	.08
	Male	68	2.82	.67		
	Total	246				

However, some items show a significant difference depending on gender after doing an item-based analysis in detail. According to the item-based analysis shown in Table 4, female instructors communicated with learners by making announcements on the LMS more than male teachers did ($p=.01$). Additionally, female instructors tended to send more classroom materials through the LMS than their male counterparts ($p=.00$). Moreover, they communicated with their students via the use of private messaging more ($p=.03$). Similarly, they left more comments on the postings that were made by their learners more ($p=.00$). On the other hand, male instructors were more inclined to create polls to collect the views of their learners on a certain subject ($p=.04$).

Table 4. Statistically Significant Differences Regarding Gender and the Level of Interaction via LMSs (Independent Samples T-Test)

	Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
1. I post announcements.	Female	178	3.98	.96	2.83	.01
	Male	68	3.58	1.05		
2. I post class materials and documents.	Female	178	4.31	.83	3.11	.00
	Male	68	3.91	1.08		
6. I send my students private messages.	Female	178	3.06	1.15	2.25	.03
	Male	68	2.69	1.14		
8. I comment on my students' posts.	Female	178	3.17	1.34	2.92	.00
	Male	68	2.63	1.22		
13. I create polls to get the opinions of my students on a specific topic.	Female	178	2.33	1.15	-2.06	.04
	Male	68	2.67	1.21		

4.2.2. Age

Age was analyzed as the second factor in how FL instructors interact with their students utilizing LMSs. The results in Table 5 reveals that the ages of FL instructors do not affect their level of communication with their students in LMS platforms ($p=.19$). In other words, whether instructors are younger or older does not have any bearing on how likely they are to communicate with their students through LMSs.

Table 5. Relationship between Age and the Level of Interaction via LMSs (Kruskal-Wallis H Test)

	Age interval	N	Mean Rank	<i>H</i> (Chi-Square)	Sig.
Mean Score of I-S Interaction via LMS	<30	44	128.99	4.73	.19
	31-40	121	126.18		
	41-50	55	126.70		
	>51	26	94.96		
	Total	246			

On the other hand, when each item in the scale is analyzed, significant differences are found for items 2, 18, 19, and 24. The p -value was found as .02, .00, .00, and .00 for these items, respectively. According to the test results shown in Table 6, instructors under 30 were more likely to communicate with their students by sending class materials and documents via LMS than teachers between 31-40 years of age. Moreover, EFL instructors over 51 years old were less likely than other age groups to allow their students to receive notifications about their posts. Similarly, EFL instructors who were older than 51 years old were less inclined to get emails or platform notifications regarding student answers on LMS than instructors younger than 30 and instructors between 31 and 40. However, there was no significant difference between the instructors aged 41-50 in terms of staying alert to student responses. Finally, instructors under the age of 30 utilized the LMS app for smartphones to keep up with messages from their students more than educators between the ages of 41 and 50 or those older than 51.

Table 6. Statistically Significant Differences Regarding Age and the Level of Interaction via LMSs (Tamhane's T2 Test)

Dependent Variable	(I) Age interval	(J) Age interval	Mean Difference (I-J)	Sig.
2. I post class materials and documents.	<30	31-40	.39*	.03
		41-50	.34	.24
		>51	.66	.09
	31-40	<30	-.39*	.03
		41-50	-.05	1.00
		>51	.26	.88
	41-50	<30	-.34	.24
		31-40	.05	1.00
		>51	.31	.82
	>51	<30	-.66	.09
		31-40	-.26	.88
		41-50	-.31	.82
18. I let my students to receive notifications about my posts.	<30	31-40	.22	.96
		41-50	.16	.99
		>51	1.59*	.00
	31-40	<30	-.22	.96
		41-50	-.05	1.00
		>51	1.37*	.00
	41-50	<30	-.16	.99
		31-40	.05	1.00
		>51	1.43*	.00
	>51	<30	-1.59*	.00
		31-40	-1.37*	.00
		41-50	-1.43*	.00
19. I am notified of student responses via email or in my LMS classroom.	<30	31-40	.12	.99
		41-50	.24	.92
		>51	.93*	.02
	31-40	<30	-.12	.99
		41-50	.11	.99
		>51	.80*	.02
	41-50	<30	-.24	.92
		31-40	-.11	.99
		>51	.68	.10
	>51	<30	-.93*	.02
		31-40	-.80*	.02
		41-50	-.68	.10
24. I use the mobile LMS application to be	<30	31-40	.45	.38
		41-50	.92*	.01

aware of notifications from my students.	31-40	>51	1.05*	.03
		<30	-.45	.38
		41-50	.47	.25
		>51	.60	.29
		<30	-.92*	.01
		31-40	-.47	.25
	41-50	>51	.13	.99
		<30	-1.05*	.03
		31-40	-.60	.29
	>51	41-50	-.13	.99

4.2.3. Native Language

Table 7 demonstrates that whether FL instructors are native or Turkish has an impact on the contact they make with their students on LMSs ($p=.00$). It can be said that native Turkish EFL instructors made much greater use of LMS as a communication medium than native EFL teachers.

Table 7. Relationship between Native Language and the Level of Interaction via LMSs (Mann-Whitney U Test)

	Native language	N	Mean Rank	U	Sig. (2-tailed)
Mean Score of I-S Interaction via LMS	Native (English)	19	71.34		
	Non-native (Turkish)	227	127.87	1165.50	.00
	Total	246			

As can be seen in Table 8, the scale items 1, 7, 8, 10, 12, 15, 16, and 23 show statistically significant differences with significance values of .00, .01, .03, .01, .00, .02, .00, and .01 consecutively. Unlike native speakers, Turkish EFL teachers implemented methods like making announcements, sending emails, making comments on students' entries, making comments on students' homework and achievement, awarding badges for students' success, motivating students to register external blogs on LMS, and using to-do checklists to track students' development for interaction by way of LMSs.

Table 8. Statistically Significant Differences Regarding Native Language and the Level of Interaction via LMSs (Mann-Whitney U Test)

	Native language	N	Mean Rank	U	Sig.
1. I post announcements.	Native (English)	19	82.26	1373.00	.00
	Non-native (Turkish)	227	126.95		
	Total	246			
7. I send my students emails.	Native (English)	19	84.89	1423.00	.01
	Non-native (Turkish)	227	126.73		
	Total	246			
8. I comment on my students' posts.	Native (English)	19	90.05	1521.00	.03
	Non-native (Turkish)	227	126.30		
	Total	246			
10. I provide feedback on my students' assignments, quizzes, grades and performance.	Native (English)	19	85.53	1435.00	.01
	Non-native (Turkish)	227	126.68		
	Total	246			
12. I give my students badges according to their achievements.	Native (English)	19	73.37	1204.00	.00
	Non-native (Turkish)	227	127.70		
	Total	246			
15. I register external blogs on our course page.	Native (English)	19	89.68	1514.00	.02
	Non-native (Turkish)	227	126.33		
	Total	246			
16. I encourage my students to register external blog links on our course page.	Native (English)	19	79.45	1319.00	.00
	Non-native (Turkish)	227	127.19		
	Total	246			
23. I create to-do checklists to monitor my students' progress.	Native (English)	19	85.13	1427.00	.01
	Non-native (Turkish)	227	126.71		
	Total	246			

4.2.4. Years of Teaching Experience

According to the One-way ANOVA conducted to find out if EFL instructors' teaching experience influenced their social exchange with their learners on LMSs, the *p*-value was found to be .34. Table 9 illustrates that the number of years FL instructors have been in the classroom has no effect on the degree of interaction between educators and their students on LMSs.

Table 9. Relationship between Teaching Experience and the Level of Interaction via LMSs (One-way ANOVA)

	Teaching Experience	N	Mean	Std. Deviation	F	Sig.
Mean Score of I-S Interaction via LMS	<5	30	3.03	.67	1.15	.34
	6-10	61	2.88	.72		
	11-15	71	3.05	.59		
	16-20	31	2.81	.63		
	>21	53	2.92	.59		
	Total	246				

A further investigation to find statistically significant differences between the items in the questionnaire and years of expertise in education reveals that items 8, 19, 21, and 24 vary significantly with p values .01, .02, .04, and .02, respectively. The values in Appendix C reveal that the only statistically significant difference regarding making comments on student postings was found between teachers with 6-10 years of experience and those with 11-15 years of experience. The ratio of instructors commenting on student postings on LMS platforms was higher for teachers with 11-15 years of experience than for teachers with 6-10 years of experience ($p=.02$). Moreover, EFL instructors with less than five years of experience received more emails or LMS notifications of student responses compared to instructors with more than 20 years of experience ($p=.03$). Similarly, there was a significant difference between instructors with less than five and more than twenty years of experience in terms of their use of LMS apps for smartphones to be informed about alerts from learners. Within the first five years of their teaching career, instructors were more inclined to download and use the LMS's application to be updated on student notifications than the other group of instructors ($p=.02$).

Although the Tukey test showed significant differences among groups concerning survey items 8, 19, and 24, no statistically significant difference was observed for item 21. Consequently, various Post Hoc analyses were performed for item 21, revealing a statistically significant difference between the groups in the LSD test. As Table 10 illustrates, instructors with fewer

than five years of experience tended to employ gamification tools in LMS more frequently than those who had been teaching for over two decades ($p=.02$). Similarly, instructors with 11-15 years of teaching experience made use of add-ons for gamification more than those with 20 years of experience ($p=.01$).

Table 10. Statistically Significant Difference Regarding Item 21 and the Level of Interaction via LMSs (LSD Post Hoc Analysis)

Dependent Variable	(I) Teaching experience in years interval	(J) Teaching experience in years interval	Mean Difference (I-J)	Sig.
21. I utilize plugins for gamification / interactive games.	<5	6-10	.49	.08
		11-15	.09	.72
		16-20	.58	.07
		>21	.66*	.02
	6-10	<5	-.49	.08
		11-15	-.39	.07
		16-20	.08	.75
		>21	.16	.47
	11-15	<5	-.09	.72
		6-10	.39	.07
		16-20	.48	.07
		>21	.56*	.01
	16-20	<5	-.58	.07
		6-10	-.08	.75
		11-15	-.48	.07
		>21	.07	.78
	>21	<5	-.66*	.02
		6-10	-.16	.47
		11-15	-.56*	.01
		16-20	-.07	.78

4.2.5. Type of Higher Education Institution

Another variable that was examined in connection to EFL instructors' use of LMSs for communication was the kind of university where they taught English. Table 11 displays that FL instructors' interactions with their learners in digital learning platforms do not differ based on the kinds of universities in which the instructors worked ($p=.87$).

Table 11. Relationship between Type of University and the Level of Interaction via LMSs (Independent Samples T-Test)

	Type of university you have been working	N	Mean	Std. Deviation	t	Sig.
Mean Score of I-S Interaction via LMS	State	101	2.95	.58	.16	.87
	Private	145	2.93	.68		
	Total	246				

As Table 12 shows, there are significant differences regarding the scale items. To begin with, item 3, *"I post classroom schedules."* had a p -value .05, indicating a significant difference between the groups. It means that schedules for courses were uploaded to the LMS by teachers in private universities at a higher rate than the other group. Furthermore, item 8, *"I comment on my students' posts."* showed a significant difference between groups with p -value .01. It can be said that teachers from state universities left comments on their students' LMS entries more than teachers from private universities. Also, item 9, *"I like my students' posts."* with p -value .00 indicated that instructors at state universities liked their learners' entries on LMS to a greater extent than instructors at private universities ($p=.00$). Last but not least, item 16, *"I encourage my students to register external blog links on our course page."* with p -value .00 revealed that instructors working in state universities advised their learners to subscribe external blog links added on their LMS course page more than instructors in private universities did.

Table 12. Statistically Significant Difference Regarding Type of University and the Level of Interaction via LMSs (Independent Samples T-Test)

	Type of University Instructors Have Been Working	N	Mean	Std. Deviation	t	Sig. (2-tailed)
3. I post classroom schedules.	State	101	3.61	1.21	-1.98	.05
	Private	145	3.93	1.24		
8. I comment on my students' posts.	State	101	3.27	1.17	2.55	.01
	Private	145	2.85	1.41		
9. I like my students' posts.	State	101	3.01	1.19	2.89	.00
	Private	145	2.54	1.36		
16. I encourage my	State	101	2.19	1.16	3.12	.00

students to register				
external blog links	Private	145	1.76	1.00
on our course page.				

4.2.6. Educational Status

Table 13 displays the difference between the educational backgrounds of instructors and the extent of interaction facilitated through LMSs. As can be seen in the table, the degree to which instructors used LMSs to facilitate I-S communication does not differ significantly according to EFL instructors' educational backgrounds ($p=.49$).

Table 13. Relationship between Instructors' Educational Status and the Level of Interaction via LMSs (One-way ANOVA)

	Educational Status	N	Mean	Std. Deviation	F	Sig.
Mean Score of I-S Interaction via LMS	B.A.	81	3.00	.62	.71	.49
	M.A.	132	2.89	.67		
	Ph.D.	33	2.97	.58		
	Total	246	2.94	.64		

When Post Hoc analyses were performed for individual scale items, the LSD test showed that item 12 significantly differed ($p=.04$). As indicated by Table 14, EFL instructors who only had a bachelor's degree awarded their learners with badges based on their accomplishments in LMSs more than EFL instructors with master's ($p=.02$) and doctoral degrees did ($p=.04$).

Table 14. Statistically Significant Difference Regarding Educational Status and the Level of Interaction via LMSs (LSD Post Hoc Analysis)

Dependent Variable	(I) Educational status	(J) Educational status	Mean Difference (I-J)	Sig.
12. I give my students badges according to their achievements.	B.A.	M.A.	.38*	.02
		Ph.D.	.48*	.04
	M.A.	B.A.	-.38*	.02
		Ph.D.	.10	.64
	Ph.D.	B.A.	-.48*	.04
		M.A.	-.10	.64

4.2.7. Administrative Duty

Table 15 illustrates that there is no differentiation between EFL teachers' contacts with their students in LMSs depending on their management responsibilities ($p=.79$). An Independent Samples T-test was also conducted on an item-by-item basis to see whether there was a significant difference between the items in the scale in relation to teachers' managerial duties. Similarly, it was found that none of the scale's items displayed a statistically significant difference related to managerial duties of instructors after conducting a comprehensive item-based analysis.

Table 15. Relationship between Administrative Duty and the Level of Interaction via LMSs (Independent Samples T-Test)

	Administrative duty	N	Mean	Std. Deviation	t	Sig.
Mean Score of I-S Interaction via LMS	Yes	54	2.92	.65	-.27	.79
	No	192	2.94	.64		

4.2.8. Weekly Teaching Hours

The Kruskal-Wallis H Test conducted to understand whether FL instructors' weekly teaching hours influence their LMS interaction shows no statistically significant difference ($p=.24$) as can be seen in Table 16. In other words, FL instructors' opportunities to interact with their students via LMSs do not differ depending on the number of hours instructors teach in a week.

Table 16. Relationship between Weekly Teaching Hours and the Level of Interaction via LMSs (Kruskal-Wallis H Test)

	Teaching hours a week interval	N	Mean	Std. Deviation	Mean Rank	H (Chi-Square)	Sig.
Mean Score of I-S Interaction via LMS	<10	25	2.84	.61	111.10	2.85	.24
	11-20	126	2.90	.70	119.02		
	>21	95	3.03	.60	132.71		
	Total	246	2.94	.64			

However, an item-based analysis uncovers that the allotment of badges to students for their accomplishments is contingent on the weekly instructional workload of EFL educators ($p=.02$). As Table 17 displays, there was a significant difference between instructors who were teaching 21 or more hours and instructors who were teaching 11 to 20 hours in a week. Instructors who taught for 21 or more hours a week awarded a greater number of badges to their students whereas those who taught for 11 to 20 hours distributed badges more sparsely. In addition, the mean values were analyzed in order to ascertain the groups that gave the highest and lowest number of badges as a way of interaction. While instructors having more than 20 hours of classes per week gave the highest number of badges, instructors who taught 11-20 hours per week awarded the fewest badges for interacting with their students.

Table 17. Statistically Significant Difference Regarding Weekly Teaching Hours and the Level of Interaction via LMSs (Tamhane's T2 Test)

Dependent Variable	Mean	(I) Teaching hours a week interval	(J) Teaching hours a week interval	Mean Difference (I-J)	Sig.
12. I give my students badges according to their achievements.	1.84	<10	11-20	.01	1.00
			>21	-.37	.49
	1.82	11-20	<10	-.01	1.00
			>21	-.38*	.05
	2.21	>21	<10	.37	.49
			11-20	.38*	.05

4.2.9. Weekly Face-to-Face Teaching Hours

According to the data presented in Table 18, the difference between the quantity of in-person instructional hours per week and the level of communication among instructors and students in LMS platforms was non-significant ($p=.06$). To put it in another way, the amount of time FL instructors spend lecturing in the classroom and their practice of communicating with their students via LMS beyond the confines of the physical classroom are not related to each other.

Table 18. Relationship between Weekly Face-to-Face Teaching Hours and the Level of Interaction via LMSs (Kruskal-Wallis H Test)

	Face-to-face teaching hours a week interval	N	Mean	Std. Deviation	Mean Rank	H (Chi- Square)	Sig.
Mean Score of I-S Interaction via LMS	<10	92	2.92	.64	119.77	5.77	.06
	11-20	141	2.91	.64	121.70		
	>21	13	3.37	.60	169.46		
	Total	246	2.94	.64			

In the light of the data in Table 19, it can be concluded that integrating polls, instigation to registering on blog pages, and implementing blogs as interactive evaluation tools vary depending on the EFL instructors' in-person teaching hours per week. Firstly, there was a significant difference between the two groups. In comparison, instructors with over 21 weekly face-to-face teaching hours created polls in LMSs more than instructors with 10 hours or less. The mean values also showed that instructors teaching 21 and more hours in the classroom per week generated polls to gather students' thoughts on a subject the most ($\bar{x}=3.15$). On the other hand, instructors having less than 10 face-to-face class hours per week polled their students on a subject the least ($\bar{x}=2.28$). Secondly, a significant difference was found among all the groups regarding cheering students to connect to external blogs on their LMS course page. Instructors with over 21 weekly in-person class hours motivated their students to connect external blogs on their LMS course page more than instructors having 11 to 20 and less than 10 weekly in-person class hours. Moreover, it was determined that instructors who taught over 21 hours in-person per week had the highest mean whereas instructors teaching less than 10 hours of in-person classes had the lowest mean. Finally, teachers having 20+ face-to-face weekly teaching hours and teachers who taught fewer hours than them significantly differed in terms of utilizing blogs in LMS platforms as a means of group evaluation. Teachers' use of blogs as an evaluative instrument increased when their face-to-face weekly teaching hours increased above 20. In addition, teachers having over 20 in-person class

hours per week had the greatest mean ($\bar{x}=3.00$) when compared to teachers having less than 10 in-person class hours per week had the lowest ($\bar{x}=1.76$).

Table 19. Statistically Significant Difference Regarding Weekly Face-to-Face Teaching Hours and the Level of Interaction via LMSs (Tamhane's T2 Test)

Dependent Variable	Mean	(I) Face-to-face teaching hours a week interval	(J) Face-to-face teaching hours a week interval	Mean Difference (I-J)	Sig.
13. I create polls to get the opinions of my students on a specific topic.	2.28	<10	11-20	-.17	.64
			>21	-.87*	.03
	2.45	11-20	<10	.17	.64
			>21	-.69	.09
	3.15	>21	<10	.87*	.03
			11-20	.69	.09
16. I encourage my students to register external blog links on our course page.	1.84	<10	11-20	-.04	.98
			>21	-1.30*	.01
	1.89	11-20	<10	.04	.98
			>21	-1.26*	.02
	3.15	>21	<10	1.30*	.01
			11-20	1.26*	.02
17. I use blogs as a collaborative assessment tool.	1.76	<10	11-20	-.06	.96
			>21	-1.23*	.00
	1.82	11-20	<10	.06	.96
			>21	-1.17*	.01
	3.00	>21	<10	1.23*	.00
			11-20	1.17*	.01

4.2.10. Weekly Online Teaching Hours

Table 20 indicates a significant difference between the time instructors spend teaching English online per week and the degree of I-S interaction taking place in LMS platforms ($p=.05$). To put it another way, the quantity of time that EFL instructors allocate to online teaching every week has an impact on the extent of their social engagement with students via LMSs.

Table 20. Relationship between Weekly Online Teaching Hours and the Level of Interaction via LMSs (Kruskal-Wallis H Test)

	Online teaching hours a week interval	N	Mean	Std. Deviation	Mean Rank	H (Chi- Square)	Sig.
Mean Score	<10	199	2.90	.64	118.01	6.20	.05
of I-S	11-20	43	3.20	.61	146.92		
Interaction	>21	4	3.20	.43	144.75		
via LMS	Total	246	2.94	.64			

Likewise, a thorough item-based examination indicates that there are significant differences in EFL instructors' answers for several of the questions between prespecified groups. Items 5, 18, and 20 had significance values of .00, .03, and .01 indicating a statistically significant difference between groups. A further Tamhane's T2 test was carried out to determine which subset of participants' replies were significantly different from the others. Table 21 illustrates that significant differences for items 5, 18, and 20 were detected only between EFL instructors who conducted virtual instruction for fewer than 10 hours weekly and those who taught between 11 and 20 hours each week. To begin with, as instructors spent fewer hours teaching English online, they were less likely to use the LMS's live chat feature to communicate with their students. In contrast, instructors who delivered online lessons to their students 11-20 hours per week used this feature much more than the other group. In addition, EFL instructors who taught online less than 10 hours weekly did not let their students receive notifications about their posts as much as instructors who had 11-20 hours of online instruction. Eventually, a significant difference was found between EFL instructors with 10 and less online teaching hours and with 11 to 20 online teaching hours in terms of using video conferencing features of LMSs. As the hours of online instruction given by teachers decreased, their use of video conferencing tools as an interaction mean declined as well. On the other hand, a significant difference was not found between them and the other

categories, even though instructors who taught more than 21 hours online every week had the highest mean score ($\bar{x}=4.00$).

Table 21. Statistically Significant Difference Regarding Weekly Online Teaching Hours and the Level of Interaction via LMSs (Tamhane's T2 Test)

Dependent Variable	Mean	(I) Online teaching hours a week interval	(J) Online teaching hours a week interval	Mean Difference (I-J)	Sig.
5. I use live chats.	2.65	<10	11-20	-.78*	.00
			>21	-.59	.80
	3.44	11-20	<10	.78*	.00
			>21	.19	.99
	3.25	>21	<10	.59	.80
			11-20	-.19	.99
18. I let my students to receive notifications about my posts.	3.20	<10	11-20	-.65*	.01
			>21	-.04	1.00
	3.86	11-20	<10	.65*	.01
			>21	.61	.86
	3.25	>21	<10	.04	1.00
			11-20	-.61	.86
20. I use video conferencing features.	3.20	<10	11-20	-.72*	.01
			>21	-.79	.38
	3.93	11-20	<10	.72*	.01
			>21	-.06	.99
	4.00	>21	<10	.79	.38
			11-20	.06	.99

5. CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

This section presents the results of the study in line with the research questions in the form of four separate parts. In the first part, the outcomes of the current study are presented. The second part makes a comparison between the prior studies in the literature and the results of the current study. The third part puts forth practical recommendations for individuals engaged in learning, teaching, educating, and creating educational resources or curricula. Finally, suggestions for additional research on this subject are offered.

5.1. Conclusions

The research seeks to determine the degree to which EFL teachers in university prep schools utilize LMSs to connect with their students and if demographic factors impact this utilization. In the light of the findings mentioned previously, several conclusions can be drawn. In the first place, the degree of interaction between EFL instructors and their students via LMSs can be classified as high, moderate, and low. In addition, the most preferred mode of interaction by EFL instructors on LMS platforms is giving feedback on the homework, tests, grades, and overall performance of learners. However, EFL instructors do not publish blog posts pertaining to their course in LMSs frequently as a way of interaction with their learners.

Secondly, EFL instructors who work in higher education institutions mostly use LMSs for content delivery. They always share course materials and schedules, provide students with constructive criticism on their work, send out reminders and emails about their course, and post-class announcements on LMS platforms. Nonetheless, they use those digital learning platforms for social learning purposes quite rarely. The interactive features of LMSs such as creation of polls, utilization of discussion forums, allocation of badges for notable achievements, and incorporation of blogs are mostly neglected by educators teaching English in prep schools in Turkey.

The third conclusion is that EFL instructors' use of LMSs with their students does not differ according to their demographic features except for their mother tongues and online weekly teaching hours. It can be said that non-native EFL instructors in Turkey employ LMSs as a means of contact with students far more often than their native counterparts do. Moreover, the amount of instructor-student contact taking place on LMSs differs significantly in line with instructors' weekly time spent teaching English online. On the contrary, it is important to note that the analyses based on each item in the questionnaire revealed a significant difference in the instructors' level of interaction with their students via LMSs.

Fourth, the findings of the study show that EFL instructors' levels of interaction and interactive tools in LMSs they use differ according to demographic variables like gender, age, native language, teaching experience, school type, instructors' education, administrative jobs, and weekly teaching hours. First and foremost, interactions in LMS between male and female EFL instructors are significantly impacted by gender. While female instructors use LMSs for content delivery and messaging purposes, male instructors tend to use LMSs for social purposes. Moreover, teachers who are below the age of 30 exhibit a higher tendency to share educational materials, receive and send notifications, and use mobile apps of LMSs more frequently compared to their older colleagues. Furthermore, Turkish EFL instructors interact with their students via sending emails, making comments, giving badges, providing feedback, making checklists, and integrating blogs into LMS platforms more than native teachers do. In addition, instructors with less than 15 years of teaching experience use LMSs more than those with 15 years or more experience making comments on students' entries, getting notifications from them, and utilizing mobile LMSs. Besides, instructors employed in state prep schools are more likely to use those virtual learning environments than those in private higher education institutions. When teachers are compared according to the highest academic level they have graduated from, university EFL teachers with B.A. degrees award learners with digital badges in LMS to denote their accomplishment more than teachers with M.A. and Ph.D. degrees. Ultimately, the study revealed that instructors use LMSs for connecting with their students in various ways due to the increasing number of hours they spend each week teaching English in both traditional and online settings.

5.2. Discussion

A number of educational implications can be made from the results of this study. First of all, the primary contribution of this study is the evidence it offers for EFL instructors to interact with their students through LMSs.

This means that EFL instructors and their students can engage in meaningful dialogues via numerous interactive ways in LMS platforms. The study's findings are consistent with other research in the literature which show the usefulness of LMSs for interaction (Holmes & Prieto-Rodriguez, 2018; Snoussi, 2019; Walker et al., 2016) and their power to improve the quality and quantity of traditional education (Rutter & Matthews, 2002; Saunders & Klemming, 2003).

The findings of the current study revealed that LMSs are primarily utilized by EFL educators for the purpose of content sharing. The modes of interaction that instructors employ with their students at a medium level include video conferences, mobile applications, receiving and sending notifications, report tools, live chats, commenting on, and sending private messages to students. At a low level, instructors make use of interactive components of LMSs such as forums, blogs, and polls. The literature contains studies providing support for the same conclusions. Researchers similarly conclude that LMSs are most often used for the uploads of course materials, occasionally for interaction between teachers and learners, and barely for online evaluation or cooperation among learners (Blin & Munro, 2008; Garrote & Pettersson, 2007; Mahdizadeh et al., 2008; Woods et al., 2004). To be more specific, Iqbal and Qureshi (2011) claim that teachers value notice boards and course-related data sharing or transferring more than tools for assessing and tracking pupil success. On the other hand, the current study's findings contradict the views of Hazari (1998) who advocates the importance of allowing learners to interact with one another and their teachers through interactive tools like message boards, real-time chat sessions, and e-mails in digital learning environments. In addition, Henderson (2003) claims that it is important to take advantage of the discussion forum function of LMSs since it can transform inactive students into engaged contributors.

Regarding demographic variables, the study's findings are conflicting. First and foremost, there is no relationship between the genders and ages of

EFL instructors and the extent of their interactions with their students according to the study's results. Correspondingly, Alharbi and Drew (2014) claim that the usage of LMSs by instructors at universities is independent of either gender or age. On the contrary, there are researches supporting that female instructors utilize a wide range of real-time and asynchronous tools for student interaction more than the opposite gender (Abazi-Bexheti et al., 2018; Tena et al., 2016). Another finding of the current study is that EFL instructors' communications with their students in LMS platforms are unrelated to the number of years they have been teaching. There may be an inconsistency with Gautreau's (2011) research claiming that the tenure status of an academic is a major factor in the extent to which they would adopt a digital learning platform. Thirdly, the results of the present study suggest that years of teaching experience and LMS use for interaction are not related; thus, they do not match the findings of prior research. For example, Cigdem and Topcu (2015) assert that teachers' potential of using digital learning platforms decreases when their teaching experience increases. Last but not least, the present study reveals no relationship between the school types in which instructors work and the level of interaction they have via LMSs. However, this finding does not correspond with Erdin and Uzun's (2021) research which found a correlation between the level of technology knowledge among educators and whether they work in a public or private institution.

When conducting an item-based analysis, various implications can be derived regarding to certain demographic factors. To begin with, the findings of the study show that FL instructors who are over the age of 50 or who have more than 20 years of teaching experience can be characterized as non-technological because neither they use the notification feature of LMSs nor let their students use it. Moreover, they are not keen on using the mobile app and the gamification feature of the LMS provided by their institution as much as instructors within the initial decade of their professional journey. Instructors who possess greater maturity may have inadequate computer

literacy, lack confidence when utilizing diverse applications and websites, possess a lower level of familiarity with an array of digital tools and applications, show a less attraction to digital software, and demonstrate heightened skepticism towards the implementation of technology in educational settings since they are digital immigrants unlike their younger colleagues who are mostly digital natives. According to the study conducted by Krumsvik et al. (2016) emphasize that there is a decline in digital abilities among teachers who are over the age of 50. Consistent findings are observed across various studies investigating the effect of teachers' ages on technology use in education. For instance, Kuskaya Mumcu and Kocak Usluel (2010) found that teachers' usage of information and communication technology for pedagogical, administrative, and private reasons declines with increasing age. Similarly, Zyad (2016) concludes that instructors younger than 30 are more inclined to include technology into their lessons. On the other hand, Mahdi and Al-Dera (2013) found out that younger and older Saudi Arabian EFL instructors did not differ from each other regarding teaching English through using technology. Keržič et al. (2021) support this study stating that there are no notable disparities in age across various applications such as LMSs, social networking websites, and other digital collaborative platforms in relation to the utilization of information and communication technology for educational purposes. In addition to this, the findings related to the effects of teachers' mother tongue on their use of LMSs as an interaction tool, indicate that there are significant differences in some scale items and that non-native EFL instructors utilize some interactive features of LMSs much more than native EFL instructors. However, the dominance of the number of non-native EFL instructors behind this finding should not be ignored. Moreover, the current study reveals that EFL instructors with bachelor's degrees are more willing to give badges for student achievements than those with higher degrees although awarding badges is a low-level communication method used by EFL instructors. This finding aligns with Bařal and Kaynak's (2020) research which found that the prospective English teachers expressed

a favorable reception towards digital badges, acknowledging their advantages such as enhancing motivation and engagement, eliciting positive emotions, and offering valuable feedback. The study also shows that as the number of teaching hours per week increases, the use of LMS features such as badges, polls, blogs, live chats, and video conferencing also increases. One possible explanation for this finding is that an increase in the number of hours dedicated to English language teaching leads to a corresponding increase in the quantity of materials and assignments that must be distributed. However, this finding does not coincide with Emelyanova and Voronina's (2014) claim expressing that the utilization of technology experiences a surge in situations where the amount of instructional hours decreases and there exists a necessity for improving students' learning abilities. Finally, the study reveals that Microsoft Teams is the third most frequently used LMS when EFL instructors are asked their most favored LMSs. This result may be attributed to the fact that web-based video conferencing platforms became widespread during Covid-19 pandemic to teach a big number of learners at the same time.

5.3. Practical Recommendations

Following are some recommendations that may be implemented after considering the results of the current study. In the first place, it is essential that educators have an incentive and they are also fully encouraged by the educational institutions they work for to utilize LMSs. Conventional education can be switched to distance learning due to force majeure such as epidemics, pandemics, or natural disasters. In these circumstances, LMSs can help educators to continue educating their learners since they enable learning to happen without the constraints of time and place. Secondly, there should be a solution to the issue of older and experienced instructors being less inclined to utilize digital learning platforms. These educators need to be trained on the social and technical features of LMSs and be informed about how LMSs may improve the efficacy of instruction. Managers and other

instructors should also show their continuous support and courage to their matured colleagues in the process of LMS training. Third, these online platforms can be properly integrated into the curriculum or coursebooks, thereby making printed course materials more interactive. Moreover, schools may prefer to implement LMSs having mobile applications since young teachers frequently use mobile LMSs and mobile phones are indispensable for the new generation of students. In this way, students and teachers can access these virtual learning platforms faster and easier. In addition to this, it is recommended that educators utilize LMSs not solely for the dissemination of instructional resources but also for fostering social interactions among students in light of the results of the present study. Carmean and Haefner (2002) claim that the acquisition of a more comprehensive understanding of concepts is facilitated through deep learning when learners are actively engaged and social. The employment of LMSs for social purposes also allows students to be exposed to the target language outside the classroom, thus enabling language development. Based on the research findings, it is evident that the utilization of badges in LMSs as a substitute for rewards and assessment tools is predominantly favored by instructors holding bachelor's degrees. An implication that can be made in the light of this finding is that instructors ought to diligently plan the implementation of badges and curate a diverse array of badges in the online platform. This approach ensures that the endeavors of all students are properly recognized and awarded. Furthermore, more interactivity may be added to LMSs by using H5P plugin. H5P tools allow teachers to create interactive content on their LMS course page and share the tasks with their students. Therefore, both student involvement and academic success have the potential to increase over time. Ellis and Goodyear (2013) also assert that the H5P activities are designed to be interactive to foster student engagement through metacognitive skills such as self-regulation and reflection. Additionally, the integration of gamification into LMSs is an essential aspect that should not be underestimated, and further attention should be given to using interactive

games on LMSs. Incorporating games into the FL learning process will likely raise both students' motivation and engagement in face-to-face education and distance learning. Another implication can be driven is regarding the EFL instructors working in private universities. They ought to use LMSs not only for sharing materials but also for interacting more since the students and their parents can be very demanding for English speaking skills, success, and good performance. Last but not least, Edmodo was found to be the third most commonly used LMS among participant instructors. Since it does not function anymore, educational software designers should create another online learning platform having a similar interface.

5.4. Recommendations for Further Research

The findings of the current study have prompted several recommendations for future academic researches. Initially, a study which is more applicable across various contexts may be conducted by augmenting both the sample size and duration of the data collection process. Besides, the findings of this study reflect a one-way communication, that is the degree and ways of communication that EFL instructors communicate with their students through the LMS. Future research can offer different perspectives by investigating whether students use LMSs to communicate with their teachers and each other and how effectively they find these platforms as a way of communication. In addition, future researchers may apply a mixed method or a qualitative research design for a greater understanding of the utilization of virtual learning environments for communication by educators and learners. Furthermore, the number of native teachers can be increased; therefore, future researchers can make a healthier comparison with Turkish EFL instructors and native speakers in terms of using LMS as a communication tool. Last, future research could examine different variables such as the training EFL teachers receive for LMSs, their perceptions of technology competence, and the facilities of the educational institutions they work in since these variables may affect I-S communication via LMSs.

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APPENDICES

APPENDIX A

“Instructor-Student Interaction on Learning Management Systems” Questionnaire

Dear participants,

This questionnaire is intended to collect data on your interaction with your students through learning management systems (LMSs). In the first part, read the questions, circle the option that suits you best or fill in the blanks. In the second part, read the statements and mark the option that expresses your opinion best. Your participation in this study is on a voluntary basis. Personal information is not requested in the study, and all information obtained will be kept confidential and used only for scientific purposes. The study is carried out for university preparatory school instructors. You can also contribute to our data collection by forwarding the form to the instructors around you. It takes approximately 15 minutes to fill out the form in the research.

If you have any questions about the study, you can contact the researchers at nburcin@yildiz.edu.tr and selami.aydin@medeniyet.edu.tr.

Thank you for your participation.

Necla Burçin Giritlioğlu & Selami Aydın

Part I. About You

1. Your gender:
 - ☐ Female
 - ☐ Male
2. Your age:
.....
3. Your native language:
 - ☐ English
 - ☐ Turkish
 - ☐ Other
4. Teaching experience in years:
.....

5. Type of university you have been working:
 - ☐ State
 - ☐ Private
6. Your educational status:
 - ☐ BA
 - ☐ MA
 - ☐ Ph. D.
7. Administrative duty:
 - ☐ Yes
 - ☐ No
8. Teaching hours a week:
.....
9. Face-to-face teaching hours a week:
.....
10. Online teaching hours a week:
.....
11. Learning Management System you mostly prefer using:
 - ☐ Edmodo
 - ☐ Google Classroom
 - ☐ Moodle
 - ☐ Blackboard
 - ☐ Advancity
 - ☐ Schoology
 - ☐ Sakai
 - ☐ ATutor
 - ☐ Enocta
 - ☐ Other :
12. Device you mostly prefer while using LMSs:
 - ☐ Desktop
 - ☐ Laptop
 - ☐ Mobile phone
 - ☐ Other :

Part II. Your Interaction with your Students on LMSs

Statements In order to interact with my students, I...		Frequencies				
		Never	Rarely	Sometimes	Often	Always
1	post announcements.					
2	post class materials and documents.					
3	post classroom schedules.					
4	create discussion topics on forums.					
5	use live chats.					
6	send my students private messages.					
7	send my students emails.					
8	comment on my students' posts.					
9	like my students' posts.					
10	provide feedback on my students' assignments, quizzes, grades and performance.					
11	send my students reminders on their assignments.					
12	give my students badges according to their achievements.					
13	create polls to get the opinions of my students on a specific topic.					
14	add blog entries about our course regularly.					
15	register external blogs on our course page.					
16	encourage my students to register external blog links on our course page.					

17	use blogs as a collaborative assessment tool.					
18	let my students to receive notifications about my posts					
19	am notified of student responses via email or in my LMS classroom.					
20	use video conferencing features.					
21	utilize plugins for gamification / interactive games.					
22	use reporting tools to monitor my students' performance.					
23	create to-do checklists to monitor my students' progress.					
24	use the mobile LMS application to be aware of notifications from my students.					

APPENDIX B

Frequencies of the Level of EFL Instructors' Interactions with Their Students via LMS

Items	Numbers / Percent	Never	Rarely	Sometimes	Often	Always	Mean	Standard Deviation
10. I provide feedback on my students' assignments, quizzes, grades, and performance.	246 100%	7 2.8	6 2.4	32 13.0	73 29.7	128 52.0	4.25	.97
2. I post class materials and documents.	246 100%	4 1.6	10 4.1	31 12.6	88 35.8	113 45.9	4.20	.92
1. I post announcements.	246 100%	4 1.6	19 7.7	60 24.4	83 33.7	80 32.5	3.87	1.00
19. I am notified of student responses via email or in my LMS classroom.	246 100%	21 8.5	21 8.5	37 15.0	67 27.2	100 40.7	3.82	1.28
3. I post classroom schedules.	246 100%	14 5.7	30 12.2	44 17.9	61 24.8	97 39.4	3.80	1.24
11. I send my students reminders on their assignments.	246 100%	21 8.5	23 9.3	57 23.2	78 31.7	67 27.2	3.59	1.22
7. I send my students emails.	246 100%	16 6.5	40 16.3	71 28.9	66 26.8	53 21.5	3.40	1.18
20. I use video conferencing features.	246 100%	51 20.7	19 7.7	46 18.7	54 22.0	76 30.9	3.34	1.50
18. I let my students to receive notifications about my posts.	246 100%	46 18.7	29 11.8	40 16.3	62 25.2	69 28.0	3.32	1.46
24. I use the mobile LMS application to be aware of notifications from my students.	246 100%	52 21.1	35 14.2	54 22.0	48 19.5	57 23.2	3.09	1.45
8. I comment on my students' posts.	246 100%	45 18.3	43 17.5	55 22.4	66 26.8	37 15.0	3.02	1.33
22. I use reporting tools to monitor my students' performance.	246 100%	42 17.1	38 15.4	80 32.5	52 21.1	34 13.8	2.99	1.26
6. I send my students private messages.	246 100%	33 13.4	47 19.1	88 35.8	53 21.5	25 10.2	2.95	1.16
5. I use live chats.	246 100%	61 24.8	45 18.3	56 22.8	50 20.3	34 13.8	2.80	1.37

Items	Numbers/ Percent	Never	Rarely	Sometimes	Often	Always	Mean	Standard Deviation
9. I like my students' posts.	246 100%	59 24.0	48 19.5	65 26.4	46 18.7	28 11.4	2.73	1.31
21. I utilize plugins for gamification / interactive games.	246 100%	64 26.0	47 19.1	67 27.2	51 20.7	17 6.9	2.63	1.26
23. I create to-do checklists to monitor my students' progress.	246 100%	66 26.8	50 20.3	67 27.2	41 16.7	22 8.9	2.60	1.28
13. I create polls to get the opinions of my students on a specific topic.	246 100%	68 27.6	62 25.2	75 30.5	25 10.2	16 6.5	2.42	1.18
4. I create discussion topics on forums.	246 100%	71 28.9	65 26.4	74 30.1	25 10.2	11 4.5	2.34	1.13
12. I give my students badges according to their achievements.	246 100%	123 50.0	48 19.5	42 17.1	24 9.8	9 3.7	1.97	1.18
16. I encourage my students to register external blog links on our course page.	246 100%	115 46.7	63 25.6	40 16.3	23 9.3	5 2.0	1.94	1.09
17. I use blogs as a collaborative assessment tool.	246 100%	121 49.2	62 25.2	43 17.5	16 6.5	4 1.6	1.86	1.02
15. I register external blogs on our course page.	246 100%	124 50.4	62 25.2	41 16.7	14 5.7	5 2.0	1.83	1.02
14. I add blog entries about our course regularly.	246 100%	137 55.7	54 22.0	33 13.4	18 7.3	4 1.6	1.77	1.04

APPENDIX C

Statistically Significant Differences Regarding Teaching Experience and the Level of Interaction via LMSs (Tukey HSD Post Hoc Analysis)

Dependent Variable	(I) Teaching experience in years interval	(J) Teaching experience in years interval	Mean Difference (I-J)	Sig.
8. I comment on my students' posts.	<5	6-10	.07	.99
		11-15	-.62	.19
		16-20	-.36	.81
		>21	-.56	.33
	6-10	<5	-.07	.99
		11-15	-.70*	.02
		16-20	-.44	.55
		>21	-.64	.07
	11-15	<5	.62	.19
		6-10	.70*	.02
		16-20	.25	.89
		>21	.05	.99
	16-20	<5	.36	.81
		6-10	.44	.55
		11-15	-.25	.89
		>21	-.19	.96
	>21	<5	.56	.33
		6-10	.64	.07
		11-15	-.05	.99
		16-20	.19	.96
19. I am notified of student responses via email or in my LMS classroom.	<5	6-10	.71	.09
		11-15	.38	.63
		16-20	.81	.09
		>21	.83*	.03
	6-10	<5	-.71	.09
		11-15	-.32	.58
		16-20	.10	.99
		>21	.12	.99
	11-15	<5	-.38	.63
		6-10	.32	.58
		16-20	.43	.50
		>21	.44	.29

Dependent Variable	(I) Teaching experience in years interval	(J) Teaching experience in years interval	Mean Difference (I-J)	Sig.
19. I am notified of student responses via email or in my LMS classroom.	16-20	<5	-.81	.09
		6-10	-.10	.99
		11-15	-.43	.50
		>21	.01	1.00
	>21	<5	-.83*	.03
		6-10	-.12	.99
		11-15	-.44	.29
		16-20	-.01	1.00
24. I use the mobile LMS application to be aware of notifications from my students.	<5	6-10	.71	.17
		11-15	.43	.62
		16-20	.95	.07
		>21	.99*	.02
	6-10	<5	-.71	.17
		11-15	-.27	.80
		16-20	.24	.94
		>21	.28	.83
	11-15	<5	-.43	.62
		6-10	.27	.80
		16-20	.52	.44
		>21	.55	.20
	16-20	<5	-.95	.07
		6-10	-.24	.94
		11-15	-.52	.44
		>21	.03	1.00
	>21	<5	-.99*	.02
		6-10	-.28	.83
		11-15	-.55	.20
		16-20	-.03	1.00