The Use of Mobile Applications for the Purpose of Teaching Vocabulary: Perceptions of EFL Teachers in Turkey

Feyza ÖZDEŞ*[1]
Ayşe Betül TOPLU[2]

Abstract

This study aims to investigate how EFL teachers in Turkey perceive the effectiveness of using mobile applications for the purpose of teaching vocabulary in universities in Turkey. It was carried out as a descriptive survey that was employed on EFL teachers to surface their perspectives on the use of vocabulary applications. The sample consists of 31 university teachers. The paper reveals the data relying on one research instrument. The data was collected through a questionnaire that includes 15 items in 3 different categories divided as vocabulary instruction as teachers embrace them as simple, student-friendly, teacher-friendly digital tools thanks to its up-to-date capabilities. They also share positive thoughts on how students accept these tools.

Keywords: *Mobile Applications, Mobile Assisted Language Learning (MALL), Vocabulary Learning, Motivation, Collaboration*

[1] M.A Student., Istanbul Aydın University, English Language Teaching Programme, feyzaozdes@stu.aydin.edu.tr , ORCID: https://orcid.org/0009-0004-0530-8378
[2] Doç. Dr., Aksaray üniversitesi, Eğitim Fakültesi, Fen Bilgisi Eğitimi Anabilim Dalı Öğretim Üyesi, ramazanceken@aksaray.edu.tr, ORCID: 0000-0003-3584-7132
Doi:10.17932/IAU.EFD.2015.013/efd_v08i2001
[3] Makale Geliş Tarihi: 01.06.2023 - Makale Kabul Tarihi: 06.07.2023

Kelime Öğretme Amaçlı Mobil Uygulamaların Kullanımı: Türkiye'deki İngilizce Öğretmenlerinin Algıları

Öz

Bu çalışma, Türkiye'deki İngilizce öğretmenlerinin Türkiye'deki üniversitelerde kelime öğretimi amacıyla mobil uygulamaların etkinliğini nasıl algıladığını araştırmayı amaçlamaktadır. Bu çalışma, kelime uygulamalarının kullanımıyla ilgili öğretmenlerin perspektiflerini ortaya çıkarmak amacıyla EFL öğretmenlerine uygulanan tanımlayıcı bir anket ile gerçekleştirilmiştir. Örneklem, 31 üniversite öğretmeninden oluşmaktadır. Makale, bir araştırma aracına dayanarak verileri ortaya koymaktadır. Veriler, kullanılabilirlik, motivasyon ve iş birliği olmak üzere 3 farklı kategoriye ayrılmış, 15 ögeyi içeren bir anket aracılığıyla toplanmıştır. Sonuçlar, mobil uygulamaların kelime öğrenme sürecine ve kelime öğretimine katkıda bulunduğunu ve güncel yetenekleri sayesinde öğretmenlerin onları basit, öğrenci dostu ve öğretmen dostu dijital araçlar olarak benimsediklerini göstermektedir. Ayrıca, öğrencilerin bu araçları nasıl kabul ettiği konusunda olumlu düşünceler paylaşılmaktadır.

Anahtar Kelimeler: *Mobil Uygulamalar, Mobil Destekli Dil Öğrenimi (MALL), Kelime Öğrenimi, Motivasyon, İş birliği*

INTRODUCTION

In the twenty-first century, using technology has become an essential part of daily life. The integration of technology into almost all facets of life is something that the masses around the world can experience and recognize. People of this era have easy access to knowledge and information without limitations of time and place thanks to the smart devices developed by the industry of information and communication technology (Sampson et al., 2013). Smartphones after regular mobile phones are the milestone of this still developing technology since they have come to the service of humanity literally as small computers mostly used for the purpose of communication, working and learning. These portable devices allow their holders to store, view, revise, transfer, display and share all types of media files at any time and place with or without a connection to the internet. Moreover, when the device has access to the web and application stores, there are even countless more options presented to be able to handle the workload they intend to do. This ability of technology to free mobile owners from the restrictions regarding time and space might be the primary factor that serves as the initial driving force behind the use of mobile devices for language learning. Salleh and Binti (2011) explain that instructors can actually find a solution to the boundaries of time between them and their students this way. In the field of education, this type of mobile technology aided learning is called Mobile Assisted Language Learning (MALL) as its primary tool is described by Walters (2012) as an easy to carry hand-held device with either connection to the internet or to some other types of network allowing controlled learning activities in various contexts and conditions. What makes vocabulary teaching and learning relevant to the same type of technology assisted method has been the aim in the field to search for and find additional strategies that nurture vocabulary acquisition. It should be emphasized at this point that vocabulary is a key aspect of language and considered fundamental for language learning. In time, the role and the function of this key component in L2 instruction have gradually changed which led to different approaches in L2 learning (Celce-Murcia, Brinton & Snow, 2014). Meanwhile, best possible pedagogical ways to improve learners' lexicon and vocabulary have remained as the targets to achieve (Sanchez & Manchon, 2007) during these changes. There are several approaches that mobile technology may help instructors with that and improve the process of vocabulary learning as a part of whole EFL learning since numerous MALL programs have been built around it.

Educators were motivated by these developments to integrate more of this mobile technology into their classrooms. The effectiveness of mobile-based teaching techniques has been the subject of many studies since then. Current study focuses on the use of mobile devices and how EFL teachers in Turkiye perceive its effects on English vocabulary learning in three separate categories.

Significance of the Study

This research may assist EFL teachers in using mobile vocabulary applications to some extent. Current paper can draw more attention to the capabilities of mobile applications. It can increase the level of motivation in students to learn vocabulary if they are encouraged to see how easy and enjoyable it is to learn words through student-friendly applications. The study can also be a supporting outline for those who plan to design courses and syllabuses so that language teachers can also improve their skills in using these apps effectively for specific educational purposes. The study also shows how practical these digital tools are in the language learning process for those who do not prefer only traditional instruction.

Research Questions

1- In what ways do EFL teachers in Turkiye perceive the simplicity and usability of mobile applications in vocabulary instructions?

2- What are the perceptions of EFL teachers in Turkiye on the potential of mobile applications in terms of motivating students to learn vocabulary?

3- Do EFL teachers in Turkiye consider mobile apps as tools to enhance collaborative learning through the vocabulary activities within?

Aim of the study

Current research aims to accomplish multiple objectives such as investigating the potential effectiveness of using mobile applications for teaching and learning vocabulary, to get a frame of the perceptions that EFL teachers in Turkiye have on mobile based language education, giving recommendations to enhance vocabulary learning environments (more interesting, enjoyable and motivating), discovering the dimensions of mobile applications in vocabulary instruction along with implications to modernize it, then emphasizing the competency of the teachers which means the proficiency at using these apps to incorporate in the teaching of EFL instructors.

Definition of Terms

Mobile application

A mobile application, also known as mobile app, is a software designed to run on mobile devices such as smartphones and tablets. These apps are developed for a variety of purposes, including entertainment, productivity, social networking, and more. Mobile apps are coded using different programming languages and frameworks. They can be distributed through various app stores, such as the App Store and Google Play Store. Mobile apps can be either native apps or web apps. Native apps are developed specifically for a particular mobile operating system (Hanna & Wigmore, 2023). They have access to the device's hardware and software features, and can work offline. Web apps, on the other hand, are accessed through a browser and run on a web server. They do not require an installment and rely on an internet connection to function.

Mobile assisted language learning (MALL)

Mobile-assisted language learning (MALL) is an approach to language learning that uses mobile devices to support and enhance the learning experience. It provides learners with flexible and personalized access to language learning materials. It allows them to use various features to enhance their learning experience.

Vocabulary Teaching

Vocabulary and its teaching play a vital part in foreign language education. Foreign language learners may not convey their thoughts with the absence of proper vocabulary from the target language, also they may not understand what the person on the other end means during a conversation or a learning task. Hence, development of vocabulary in students is a key component of English language instruction. Zhang (2015) states that words are like building blocks and their absence can either hinder or harden the production or comprehension of the target language. A considerable number among EFL students approach vocabulary as the most challenging aspect of language learning process and they believe that it poses a serious threat to their comprehension (Silverman & Hines, 2009), as well as to the production of the target language. According to recent studies, overcoming that can be challenging for teachers who lack confidence in effective vocabulary teaching methods. Thus, they may find themselves in a difficult position of not knowing how to put an instructional emphasis

on word learning (Berne & Blachowicz, 2008). Teachers in such condition may struggle with how to instruct students in a way that gives satisfying outcomes (Susanto, 2017). Vocabulary instruction in this case remains one of the aspects in teaching English as a foreign language that is frequently discussed.

General instructions in the field of Vocabulary Teaching

Susanto (2017) illustrates that a good instructor is the one who does research, gets prepared to apply various up-to-date methods creatively by mastering the use of selected materials so that learners can be interested in them while they have a better understanding of what to do with them, how and why. Takac and Singleton (2008) outline some techniques when the target of the language learning becomes vocabulary as their use depends on the content, on the worth of the content for students and on the time boundaries between the teacher and students. The use of objects is one of the techniques that helps one remember words more concretely because objects are known to be quite reliable visual sources to aid learners with real life demonstrations. Thorbury (2002) contributes to the research with drilling technique which is used to get learners familiar with the forms of words, particularly with how they sound within a natural and clear context while spelling along with active participation are also important parts of it. This may lead students to be encouraged to elicit meaning out of the content which is considered a way to increase speaking opportunities and serve as a control mechanism on learners' own understanding. Alqahtani (1970) describes another technique, miming, within the frame of gestures and expressions which can be utilized to introduce and clarify the meaning of a word in a reading passage as well as in speaking activities because it places a strong emphasis on communication. Additionally, drawings and pictures come forward as a different type of method that enables students to relate their previously acquired knowledge to a new set of terms in different contexts. Limitless vocabulary can be introduced with visuals that can work wonders in clarifying the meaning of unfamiliar terms (Susanto, 2017). When the target is a new set of terms as previously mentioned, Gruneberg and Sykes (1991) describe the enumeration technique as a plan to help teachers when the words in these sets in question are hard to visualize, so they can choose to present a collection of them listed fully in the correct sequence. They also explain an additional strategy in the same content named contrast, meaning that the presentation of the terms can be provided to learners with their opposites. Foreign language teachers also

make use of guessing techniques. Inferring meaning from the context allows students to deal with unknown vocabulary (Dubin, 1993).

Despite the importance of vocabulary instruction methods, Al-Johali (2019) criticizes that in the 80's, the field of vocabulary teaching in general was neglected to begin with. There was not sufficient research in the past that dealt with the teaching and learning of vocabulary. However, this situation has altered, and vocabulary acquisition along with its teaching have received an increasing focus in recent years. Some other foreign language educators discuss why vocabulary should be the focal point of language instruction (Albousaif, 2011; Alenezi, 2014; Nisbet & Austin, 2013). It is estimated that vocabulary will inevitably develop as other language skills are practiced on a regular and well-planned basis since teaching vocabulary nowadays has been a central component of any EFL curriculum (Al-Johali, 2019). Subekti and Lawson (2007) suggest that there can be specific strategies for vocabulary acquisition that may offer empirical proof of their contribution to overcome unknown words, which can lead to better communicative competence.

The improvement of communicative competence takes place with an active self-directed involvement that is facilitated by learning strategies. The goals of these language learning strategies are promoting the process of vocabulary learning by making it simpler, quicker, more pleasant, more independent with better fluency and self-explanatory instruction (Oxford, 2003). Therefore the same strategies would also be more adaptable to new circumstances. Oxford (2003) explains further that learners are able to form objectives through the use of learning strategies, then employ a variety of activities, tactics and plans to their advantage which is something that may result in assuring comprehension, retention and the use of knowledge for their own vocabulary learning process easier while they can independently set new learning goals to overcome. Susanto (2017) claims that learning words is not just about memorizing them; it is also important to know how to extend one's vocabulary and how to apply them in various contexts. Strategies for learning new words come into play here as well as MALL which provides multiple effective options for vocabulary acquisition, fostering independence of learners to learn new words and utilizing all the creativity they may possess to learn those words through mobile activities (Hedge, 2015).

Mobile-assisted Language Learning

The use of mobile technology for foreign language education has spread exponentially. Mobile learning is widely accepted, notably in terms of its use, effectiveness, interactivity, and convenience among language learners (Karpenko & Magda, 2021). A considerable number of mobile apps have been developed in recent years to advance the proficiency of EFL learners. According to Mindog (2015), mobile apps are now widely recognized technological tools with a lot of promise to enhance language acquisition. These apps, that can be personalized in smartphones most students already own, are simple to use for the purpose of studying target language anywhere and anytime (Mindong, 2015). The use of mobile apps provides additional advantages to foreign language learners. Hossain (2018) outlines these advantages as saving learners from the burden of carrying materials such as books and dictionaries, testing levels of various L2 systems and skills independently, and also sharing knowledge with study partners in an enjoyable and creative way. Mobile apps also allow students to learn how to get technologically ahead and benefit from them to improve their linguistic competence free of charge and time limitations. Furthermore, MALL gives students convenient, contextual and real-time opportunities which enable them to experience unique language learning settings (Metruk, 2021). Numerous studies have sought to look at the use of mobile apps for this very purpose and they have demonstrated the value of it in language classes. Meanwhile, it has been found out that the potential of mobile devices to elevate the level of engagement, motivation, communication and collaboration among students is perhaps the most noteworthy advantage (Al- Johali, 2019).

Instructions at mobile-assisted vocabulary teaching.

With their multifunctional features, mobile apps can provide a significant contribution in reinforcing vocabulary instruction and learning. There are countless vocabulary apps that can be applied both inside and outside of language classrooms. Teachers can successfully introduce their students to the world of English vocabulary by using mobile devices. Additionally, they can present limitless access to online dictionaries, databases, and vocabulary websites among other sources of vocabulary knowledge to their students. They can also distribute all word-related information on mobile apps and utilize identification tools to explain multiple contextual meanings of words. There are numerous vocabulary games built on dif-

ferent settings available for teachers to use on mobile platforms that may encourage students by making vocabulary learning fun for them through gamification. Moreover, the advantage of learning new English terms that are not included in conventional dictionaries can be provided as well by these apps. A lot of studies, including the research of Nisbet & Austin (2013), show the effectiveness of MALL for these purposes. The examined literature supports these ideas and demonstrates that attitudes of both teachers and students toward using mobile devices for vocabulary practice are mostly positive because when teachers use mobile apps, they can boost learners' motivation as they keep learning new things which also leads them to do better in vocabulary sections of language exams (Basal et al., 2016). Another study by Klimova (2018) supports the idea that MALL has advantageous consequences on EFL learning, particularly in terms of vocabulary development and boosting study motivation. Suwantarathip and Orawiwataakul (2015) experimented on two groups of 40 students, each group formed from university EFL students to investigate the effects of mobile-assisted vocabulary learning exercises. For seven weeks, the teacher provided vocabulary exercises to the first group through traditional pen and paper methods, while the other group received them on a mobile platform. The students were given a pre-test before the study to determine their proficiency level which was at the time revealed to be on the same level. In the parallel post-test, the mean score of the experimental group in which the teacher had them practice vocabulary through mobiles, was greater than the mean score of the control group. This experiment showed that teachers can have an advantage when they prefer MALL activities over paper-based exercises in terms of fostering vocabulary development. Following the experiment phase, the participants were given an attitude questionnaire to indicate their ideas about mobile-based vocabulary improvement in order to get evidence of their attitudes. The responses proved that students were generally pleased with mobile exercises. They considered mobile apps to be useful learning tools and believed that they can help learners overcome spatial barriers.

For multiple prospective components of MALL mentioned in the current study to be utilized in a language classroom, recent research indicates that three key topics should be covered in any training program that attempts to improve teachers' usage of mobile apps lining as pedagogical knowledge denoting the activities to be used to incorporate MALL in the learning process and technical knowledge related to the features of applications along

with content knowledge that specifies the materials and topics to be taught. Passey (2010) emphasizes that teachers can practice a variety of activities that may encourage students to utilize mobile apps efficiently during the training session. Some teachers employ mobile vocabulary apps also to augment or extend lessons focusing on translation, linguistics, and literary terminology. There are also teachers who aid the students in getting ready for the vocabulary sections of proficiency exams like TOEFL or IELTS to make the process of learning vocabulary for any competitive tests simpler. Teachers are able to select different levels of proficiency through apps easily based on the target level. However, according to Al-Jarf (2022), they should be careful about choosing apps relevant to the sub-skills or subjects the students study in class and in their textbooks, as well as any other vocabulary skills they intend to improve. In his research regarding the use of mobile vocabulary applications, Al-Jarf (2022) concludes that one subject or skill at a time should be the emphasis of the teacher, that vocabulary apps selected must offer descriptions, justifications, illustrations and extra activities for the sake of providing more practice, immediate feedback, sufficient content and items. Teachers should also explain the goal of using these apps before letting the students know what exactly they will do, study, or practice and whether they will use the app individually, in pairs, or in small groups. Al-Jarf (2006) in a different study illustrates also how to use these apps, how a given assignment should be completed and how these assignments should be clearly, precisely described by teachers with detailed instructions. The examined literature shows that teachers can manage a more successful employment of MALL on vocabulary teaching by laying out the expectations from the students, specifying the sections they must complete, and establishing a time frame or deadline for finishing the assigned apps. The role of teachers at this point is that of a facilitator (Chen, Chen & Yang, 2019). They encourage students to do their best during mobile vocabulary exercises and in order to ensure an effective use of the selected app, the students can be monitored throughout the activities. Language teachers may also encourage students to take these exercises seriously by including vocabulary application materials in exams.

Categories of mobile vocabulary apps: What makes them good

Mobile applications have offered a wide range of options recently, therefore teachers and students do not need to carry thick, heavy dictionaries, glossaries, or other study guides any longer. Dictionary applications that can be found in mobile stores relieve the needs of learners in this sense.

Al-Johali (2019) states that applications such as The Free Dictionary are extensive softwares along with a glossary and thesaurus. They also offer idioms, acronyms, an encyclopedia, and a reference section for literature. Users can also design their own homepages with games, a language forum and more (Aslan, 2016). There are also numerous translation apps with varying features available in stores. Teachers and learners merely need to look through the options to pick the translation app that complies with their needs. Students who struggle to communicate in English with native speakers may also find these apps helpful. Google Translation is one of the most popular web apps among these. Additionally, Nisbet & Austin (2013) emphasize launchpad apps as multifunctional programs with a wide range of capabilities including hosting events and presenting hundreds of flash-cards covering countless subjects. There are also speech applications that enable students to develop their audio skills by listening for subtle changes in words, syllable stresses or intonations. By learning new words through regular listening activities, children can expand their vocabulary (Nisbet & Austin, 2013). The types of softwares one can find for vocabulary le-arning in digital stores are not limited to these categories. The purpose of other applications such as the ones developed by focusing on idioms are to teach students the most common among them that are used in daily speech involving recently emerging terms. Self-administered quizzes on a variety of subjects displayed in mobile apps allow students to learn in an enjoyable and engaging way. Furthermore, vocabulary applications for the preperations of proficiency exams like IELTS can be a great use for students in the training process. The well-known application YouTube is also a platform where learners can benefit from vocabulary videos inc-luding the ones uploaded by language teachers all around the world. Wu (2015) adds to the categories of mobile vocabulary apps with text messa-ging applications that contain both language and conceptual knowledge in their database. Kassem (2018) additionally describes mobile games as to-ols that can receive acceptance among students when teachers select them appropriately for the level and competence of their students. Mobile apps like Twitter also contribute to these categories and provide a type of vo-cabulary learning occurring through microblogging which delivers some social networking features at the same time that can boost the motivation of learners (Yang, 2013).

According to Al- Johali (2019), a good integration of a mobile vocabulary app that works well means language learners being introduced to a dili-

gent and coordinated study curriculum through the apps. Nisbet & Austin (2013) claim that a mobile vocabulary app can be deemed successful if it follows some main elements such as teaching specific words, methodologies to learn those words and offering diverse, deep linguistic experiences while promoting word consciousness. When teachers try to select suitable mobile vocabulary apps for their lessons, Navariz (2015) emphasizes that they should take two additional conditions into account which are the usefulness and applicability of the application.

METHODOLOGY

The current descriptive study looked into the opinions of EFL teachers regarding the use of mobile apps to teach vocabulary to university students.

Setting and Context

The research was carried out in 2023 in Turkiye. With widespread access to mobile devices, particularly among young individuals, the use of smartphones and other handheld devices has become increasingly common. As a result, university students studying English as a foreign language might be accustomed to utilizing mobile technology for their education.

Sample

For this study, purposive sampling method was employed due to the fact that MALL has not officially been integrated into any EFL curriculum in Turkiye yet. Consequently, the sample was formed of 31 prep-class EFL teachers from different universities in Turkiye who have experienced the outcomes of using mobile vocabulary applications in extracurricular circumstances. The researcher employed the instrument through a Google forms web link.

Instrument

The researcher chose to use a 5-point-likert-scale questionnaire with predetermined multiple options as a method to gather information from English language teachers. The questionnaire was adapted from the research instrument that Al-Johali (2019) designed for his article called ''Using mobile applications to teach vocabulary: Saudi EFL teachers' perceptions''.

The three research questions intended to be investigated were all covered by the questionnaire which had three categories that consist of 5 statements. There were 15 questions on the questionnaire in total, each with

five possible answers: strongly agree, agree, not sure, disagree, and strongly disagree. Participants were asked to rate their level of agreement or disagreement with each statement on a scale of 1 to 5, with 1 indicating strong disagreement and 5 indicating strong agreement. Each category was designed to gather opinions from EFL teachers regarding the usability, motivational benefits, and collaborative learning opportunities offered by using mobile apps for the purpose of teaching vocabulary.

Procedure

The researcher adapted a 15-items questionnaire from an already available research instrument by remeasuring the reliability and consistency within the categories the adapted version has. She transformed it to an electronic questionnaire using Google Forms. The survey was distributed online. The questionnaire responses were gathered for subsequent analysis.

Data Analysis

The acquired data were statistically analyzed by the researcher and her collegue using SPSS. She evaluated the mean scores, medians, modes, and frequencies for each questionnaire item to extract the data. These statistics were used to provide a detailed understanding of the participants' responses to the questionnaire, and to help identify patterns in the data.

Internal consistency and reliability were assessed for the adapted questionnaire using the Cronbach's Alpha coefficient. The results of the Cronbach's alpha test indicated that the questionnaire had a high degree of internal consistency, with a coefficient of .874 for the usability category, .824 for the motivation category, and .772 for the collaboration category. These values are considered to be high and moderate to high, indicating that the items on the questionnaire measure the same construct and are consistent with each other, and that the questionnaire is a reliable measure of the construct being assessed.

RESULTS

Table 1 illustrates the information regarding the vocabulary apps usage of 31 participants.

Table 1. *Responses of Participants on Which Mobile Apps They Have Used*

Apps	Number of Participants	Percentage%
Optional Vocabulary App Items		
Quizlet	13	41.9%
The Free Dictionary	6	19.4%
Translator with Speech	3	9.7 %
Quiz Generator	8	25.8%
Additionally Identified Items		
Langtolang	1	3.2 %
Mentimeter	1	3.2 %
Kahoot	3	19.4%
Celt app	1	3.2 %
Blooket	1	3.2 %
Words of wonders	1	3.2 %
WordReference	1	3.2 %
Tureng	2	6.5%
Wordwall	1	3.2 %
Baamboozle	1	3.2 %
Quizizz	1	3.2 %
English Club	1	3.2 %

Table 1 shows the results of the question asking EFL teachers in Turkiye about which mobile apps they have used for teaching vocabulary. Out of the 31 participants, 41.9% of teachers reported using the app Quizlet, 19.4% reported using The Free Dictionary App, 9.7% of the participants reported using Translator with Speech, and 25.8% of them reported using Quiz Generator. In addition, there was a blank section where teachers could indicate any other apps they have used. The results from this section show that teachers also used a variety of other apps with Quizlet being the most popular among the participants.

Usability Data in Light of First Research Question

Table 2 illustrates perceptions on the usability of mobile vocabulary apps.

Table 2. *Values of the Responses on Mobile Apps' Usability*

Usability Category	Mean	Median	Mode	SD*	Strongly agree N (%)	Agree N (%)	Not sure N (%)	Disagree N (%)	Strongly disagree N (%)
Items									
1- I think mobile vocabulary apps are easy for my students to use	3,94	4,00	4	1,063	11(35.5)	11(35.5)	6(19.4)	2(8.5)	1(3.2)
2-I think mobile vocabulary apps are simple and usable for my vocabulary teaching	4,19	4,00	4	,946	13(41.9)	14(45.2)	2(6.5)	1(3.2)	1(3.2)
3-It brings more advantages then disadvantages to my students when they learn vocabulary through mobiles	3,84	4,00	4	1,036	8(25.8)	14(45.2)	7(22.6)	0	2(6.5)
4-It is easier to view, review and edit on mobiles for my students	3,81	4,00	4	,910	7(22.6)	14(45.2)	7(22.6)	3(9.7)	0
5-Mobile apps have advantages of accessibility, portability and multimedia	4,19	5,00	5	1,167	17(54.8)	8(25.8)	3(9.7)	1(3.2)	2(6.5)

*SD = Standard Deviation

As it can be seen in Table 2, the data indicates that the majority of the participants agreed that mobile vocabulary apps are easy for students to use and the teachers have a positive perception of the usability of mobile vocabulary learning apps for their students. Most of the teachers strongly agreed with the statement "I think mobile vocabulary apps are simple and usable for my vocabulary teaching.", as indicated by the mean score of 4.19. The data acquired reveals that on average, the teachers in the sample tend to think that Mobile assisted vocabulary learning brings more advantages than disadvantages to their students when they learn vocabulary through mobiles. The standard deviation of 1.036 indicates that the scores for this item are relatively close together. This suggests that the majority of the teachers in the sample have a similar level of agreement on the advantages of mobile apps for their students. Most of the teachers also have a similar level of agreement that it is easier to view, review and edit on mobiles for their students. This concludes that mobile vocabulary apps contribute to the process of vocabulary learning in a broader sense and to vocabulary instructions as teachers embrace the use of them as simple, student-friendly, teacher-friendly digital tools thanks to its up-to-date capabilities. In the last item of the first category "Mobile apps have advantages of accessibility, portability and multimedia.", the mean score is 4.19 which reveals that the teachers strongly agree that mobile apps have advantages of accessibility, portability and multimedia.

Motivation

Table 3 illustrates perceptions on the motivational attributes of mobile vocabulary apps.

Table 3, *Values of the Responses on Motivation Factor of Mobile Vocabulary Apps Usage*

Motivation Category	Mean	Median	Mode	SD*	Strongly agree N (%)	Agree N (%)	Not sure N (%)	Disagree N (%)	Strongly disagree N (%)
Items									
6-It is enjoyable for my students to learn vocabulary through mobile phones	3,84	4,00	4	1,036	8(25.8)	14(45.2)	7(22.6)	0	2(6.5)
7-The use of mobile phones motivates my students to be both active and interactive during vocabulary learning activities	3,87	4,00	4	,885	7(22.6)	15(48.4)	8(25.8)	0	1(3.2)
8-Mobile apps increase the level of interest of my students in learning vocabulary	3,81	4,00	4	1,138	9(29)	13(41.9)	5(16.1)	2(6.5)	2(6.5)
9-Using vocabulary apps encourage my students to participate in activities and contribute to group work through the interaction on mobiles	3,90	4,00	4	1,044	9(29)	15(48.4)	3(9.7)	3(9.7)	1(3.2)
10-My students would like to continue using mobiles to learn vocabulary	4,16	4,00	5	,934	13(41.9)	12(38.7)	5(16.1)	0	1(3.2)

*SD = Standard Deviation

The data of the statement 6, with a standard deviation of 1.036 and a mode of 4 suggests that the teachers generally had positive perceptions. The majority of the teachers (n=14; %45.2) agreed that it is enjoyable for the students to learn vocabulary through mobile phones and 8 other teachers strongly agreed with this. This is an indication that the teachers believe students find learning vocabulary through mobile phones to be fun, which can be a contributing factor to student motivation. For item 7, "The use of mobile phones motivates my students to be both active and interactive during vocabulary learning activities," the majority of the teachers (n=15; %48,4) agreed that the use of mobile phones motivates students to be active and interactive during vocabulary learning activities and 7 of them (%22,6) strongly agreed. This shows that the teachers believe the use of mobile phones to be motivating for students to become more active and interactive during vocabulary learning activities, which can enhance the learning process. They also agree that mobile applications boost the level of interest of students in studying vocabulary. The data reveals that the vocabulary learning process is more engaging thanks to mobile apps. The interpretation of the data provided for Item 9 pursuades that the majority of teachers had a positive perception of the use of vocabulary apps to encourage students to participate in activities and contribute to group work through mobile interactions. This is supported by the mean score of 3.90, and standard deviation of 1.044 which suggest positive perceptions. The acquired date for Item 10 also suggests that the majority of teachers had a strong positive perception that their students would like to continue using mobile devices to learn vocabulary. This is evidenced by the high mean score of 4.16 and the low standard deviation of 0.934. Overall, the results for this category suggests that the teachers in the sample believe that their students have a positive attitude towards using mobile devices for vocabulary learning.

Collaboration data in light of third research question

Table 4 illustrates perceptions on the collaborative effects of mobile vocabulary apps.

Table 4. *Values of the Responses on Collaborative Factor of the Use of Mobile Vocabulary Apps*

Collaboration Category	Mean	Median	Mode	SD*	Strongly agree N (%)	Agree N (%)	Not sure N (%)	Disagree N (%)	Strongly disagree N (%)
Items									
11- I think that using mobile vocabulary apps regularly would drive my students to participate more in exercises.	4,34	5,00	5	,890	5(16.1)	17(54.8)	7(22.6)	1(3.2)	1(3.2)
12-My students like the collaborative work on vocabulary learning via mobiles	4,53	5,00	5	,655	7(22.6)	14(45.2)	7(22.6)	2(6.5)	1(3.2)
13-Vocabulary learning through mobiles enable my students to fully interact with each other	4,17	4,00	5	,976	6(19.4)	10(32.3)	13(41.9)	1(3.2)	1(3.2)
14-My students can benefit considerably from their peers through mobiles during their vocabulary learning	4,07	4,00	5	1,090	4(12.9)	15(48.4)	7(22.6)	4(12.9)	1(3.2)
15-Working on vocabulary learning through mobile phones facilitate the collaboration among my students during group study during	4,07	4,00	5	1,090	5(16.1)	17(54.8)	6(19.4)	2(6.5)	1(3.2)

*SD = Standard Deviation

Based on the results of the third category, it appears that the majority of participants believe using mobile vocabulary apps regularly would drive their students to participate more in exercises. Most teachers agreed or strongly agreed with the statement. The findings are in line with the perceptions of multiple researchers presented in the current study regarding the acceptance that teachers see mobile apps as a tool to enhance collaborative learning through the vocabulary activities within. The data of Item 12 suggests that the most of the participants believe their students enjoy collaborative vocabulary learning through mobile devices. Therefore, they see mobile apps as a beneficial tool for vocabulary learning. According to the mean score analysis in Item 13, they also believe that vocabulary learning through mobile devices enables their students to fully interact with each other. Teachers in the sample generally believe that mobile devices promote better student connection and cooperation and these can be used to enhance collaborative learning through vocabulary activities. They mostly agree that mobile devices can also significantly improve vocabulary learning by fostering enhanced peer interaction and collaboration among their students. The average score of 3.55 and the bulk of responses that were in agreement are also indicators of this. According to most of the participants, mobile apps can help students learn collaboratively, and mobile devices encourage more student involvement along with peer benefits. Based on the mean score of 3.74 in Item 15, it appears that the majority also have a positive perception that working on vocabulary learning through mobile phones facilitates the collaboration among their students during group study. The standard deviation of 0.930 suggests that there is not a large degree of variation in responses. The median and mode of 4 also indicate that most of the participants agreed or strongly agreed with this statement.

DISCUSSION

In the light of the first research question that aimed to explore the perceptions of EFL teachers towards the usability and effectiveness of mobile vocabulary learning apps, after analyzing and interpreting the data, it can be said that the majority of teachers in the sample held a positive view towards these apps. The data analysis revealed that participants largely agreed on how mobile vocabulary apps are user-friendly, useful for vocabulary teaching, bringing more benefits than drawbacks, and advantages such as accessibility, portability, and multimedia. Additionally, the low standard deviation in most of the items indicates a consistent response, meaning

that the majority of the participants shared similar perceptions.These results align with previous studies on mobile technology and education. For example, Sampson et al. (2013) highlighted the easy access to knowledge and information through mobile devices, which signals to the usability of mobile vocabulary apps. Similarly, Walters (2012) noted the advantages of mobile devices in allowing controlled learning activities in various contexts and conditions, which supports the advantages of accessibility, portability, and multimedia of mobile vocabulary apps. Many other researchers in current literature also support the interpretations of the acquired data from the current study as well in their research such as Karpenko & Magda (2021) who emphasized that mobile learning is widely accepted for its ease of use, effectiveness, interactivity, and convenience among language learners. Mindong (2015) noted that mobile apps, which can be personalized and are easily accessible on smartphones, are simple to use for studying target languages anywhere and at any time. Metruk (2021) concluded that mobile apps allow students to stay technologically ahead and improve their linguistic competence, without time or cost limitations, and also provides students with convenient, contextual and real-time opportunities to experience unique language learning settings. All of these are considered advantages of mobile apps which are more numerous than their disadvantages.

The present study also aimed to investigate the perceptions of EFL teachers in Turkiye on the potential of mobile applications in terms of motivating students to learn vocabulary. The data interpretation for this category revealed that teachers generally held positive opinions of the potential of mobile applications to motivate students. The mean scores for each item were mostly above 3.5, indicating that teachers generally agreed or strongly agreed that mobile applications can be motivating for students. Additionally, the frequency data shows that a majority of the teachers strongly agreed or at least agreed with the items in the motivation category. This suggests that the participant teachers believe that mobile applications can be a useful tool for motivating students to learn vocabulary. However, it is worth noting that there were a few teachers who disagreed or were neutral about the items in the motivation category, so it would be worth exploring their perspectives to gain a more complete understanding of the teachers' perceptions in a broader sense. It is also important to keep in mind that motivation is a complex construct and mobile applications are just one of the many factors that can affect motivation. Therefore, it is important to

consider other factors that can influence motivation and to analyze the data in the context of a larger study. The findings are also in line with the statement of Susanto (2017) in which the importance of research and the use of up-to-date methods by instructors are emphasized. Additionally, it can be deducted from the data the need to find ways to make vocabulary learning simple, quick, pleasant, and independent, which are the goals of language learning strategies as stated by Oxford (2003).

The final research question of the study aimed to investigate whether EFL teachers in Turkiye consider mobile vocabulary learning apps as a tool to enhance collaborative learning through mobile vocabulary activities. The data interpretation from this category in the questionnaire suggests that the majority of EFL teachers in the sample have a positive perception of the collaborative potential of mobile vocabulary learning apps. The data from the items related to collaboration generally indicate that majority of the teachers in the sample believe that using these apps regularly would drive their students to participate more in exercises. It also can be extracted from the findings that their students like doing collaborative works this way. Moreover, mobile devices enable students to fully interact with each other. Most of the participants also believe that their students can benefit considerably from their peers through mobile oriented vocabulary exercises. Working on vocabulary through mobiles facilitates the collaboration among their students during group study based on what the data reveals. The findings overall suggest that participants see mobile apps as tools to enhance collaborative learning through vocabulary activities within, and they believe that mobile devices allow for greater student interaction, collaboration and benefiting from peers during vocabulary learning and group study. This also aligns with the view of Al-Johali (2019) who concluded that the potential of mobile devices to increase student engagement and motivation as well as to improve communication and collaboration are one of the most noteworthy advantages of using mobile vocabulary applications.

CONCLUSION

The purpose of the current study was to investigate the perceptions of EFL teachers in Turkiye regarding the use of mobile applications for the purpose of vocabulary teaching. Study results indicate that most teachers who participated in the survey have a positive perception of the usability and effectiveness of mobile vocabulary learning apps. The data analysis sup-

ports the use of these apps as a valuable tool for enhancing vocabulary instruction in EFL classrooms, particularly in terms of ease of use, benefits, and multimedia features. The data revealed in the study also suggests that participants see the potential of mobile applications in terms of motivating students to learn vocabulary. Based on the findings, it is safe to state that the use of mobile applications are considered a valuable tool for enhancing vocabulary instruction and increasing student motivation in EFL classrooms. However, it is important to take into consideration other factors that can influence motivation and to explore the perspectives of teachers who disagreed or were neutral about the items in the motivation category. Based on the current study, it can also be concluded that teachers in the sample agree that the use of mobile vocabulary apps have collaborative potential. They believe these apps to be a useful tools for enhancing collaborative learning through vocabulary activities. They also agree that mobile devices allow for greater student interaction, collaboration and benefit from peers and group study during vocabulary learning. The results imply that the use of mobile vocabulary learning apps are valuable mediators to improve vocabulary instruction and encourage collaboration in EFL classrooms. Given the widespread availability of network technologies all around the world, the use of mobile applications for vocabulary instruction is a reasonable and beneficial approach. Furthermore, mobile applications can help teachers raise more autonomous learners who can take control of their own process. Language teachers of this era, in which technology is expected to be integrated into any field, can consider the use of mobile applications in their instruction and prepare themselves for the effective use of it.

Recommendations and Implications

The final section of the current study compiles various recommendations and implications that may improve mobile-assisted vocabulary training and learning after focusing on the findings and looking into numerous similar studies in the literature.

It appears that mobile vocabulary applications will provide better results when they are user-friendly and comprehended sufficiently by the students. Instructions should obviously follow a solid pedagogical foundation. Teachers can also instruct their students on how to take advantage of various mobile vocabulary applications in the digital stores. In order to benefit from multiple useful functions of vocabulary mobile apps properly within the class, teachers should be technically proficient and familiar with

them. It is also important for them to stay updated and have the most recent knowledge about mobile applications. In order to achieve an effective use of vocabulary apps, both students and teachers should be pre-trained. Teachers should be competent in terms of the technicalities of this technology and the pedagogical needs of their classroom profile. The environment of the classroom should also be more mobile-oriented. Classroom management on the other hand is another point here which requires additional study with a different design.

Students with technical knowledge gaps should be assisted. Once a mobile oriented learning environment is achieved, the teacher can also encourage the students to use these apps outside the class and deliver extra mobile-based assignments to complete at home so that the students can gain autonomy in the process of self-study. Mobile learning is a strategy that can be applied both outside and inside the classroom. However, the use of mobile apps which are based on the instructions should be incorporated and implemented according to the curriculum. Teachers can also make use of the mobile oriented learning teaching environment to support and encourage collaborative work and group activities among students. The ultimate improvement in terms of the use of mobile apps for vocabulary teaching and learning can be provided by the teachers who are proficient in technology if they contribute to MALL by developing original applications arising from their knowledge and experiences as language experts.

Limitations of the Study
The fact that mobile vocabulary applications or the use of mobile apps in general are not included in the syllabuses of any schools in Turkiye leads to having limited research opportunities. The number of teachers who experiment with MALL is quite small despite the growing interest in the use of mobile apps in the language education field. According to a few teachers the researcher personally contacted prior to the study, this is mainly because the administrations of universities, highschools and secondary schools are extremely strict and specific about what language teachers are asked to apply in their own classrooms. On the other hand, it is necessary to investigate the use of vocabulary mobile applications fully in a blended learning setting. Due to the small sample size, the results of the current article cannot be generalized to all teachers in Turkiye. It is essential to explore how mobile vocabulary apps affect students in different grades as well. Therefore, the researcher advises a study that has a larger sample size in the future.

REFERENCES

Al-Jarf, R. (2006, December 7). Making connections in vocabulary instruction. King Saud University. Retrieved January 12, 2023, from https://eric.ed.gov/?id=ED497939

Al-Jarf, R. (2021). Learning vocabulary in the app store by EFL college students. International Journal of Social Science and Human Research, 5(1), 216-225. Retrieved January 12, 2023, from https://eric.ed.gov/?id=ED618472

Al-Johali, K. Y. (2019, February). Using mobile applications to teach vocabulary: Saudi EFL teachers's perceptions. Global journal of foreign language teaching, 9(1), 51-68. https://doi.org/10.18844/gjflt.v9i1.3968

Albousaif, M. A. (2011). Factors determining Saudi learners' difficulties in attaining EFL vocabulary (Publication No. 10838) [Doctoral dissertation, University of Newcastle]. Retrieved January 4, 2023 from https://ogma.newcastle.edu.au/vital/access/manager/Repository/uon:10838

Alenezi, H. (2014). Vocabulary instruction practices of highly effective EFL teachers in Saudi Arabia (Publication No. 1050) [Doctoral dissertation, University of Arkansas]. Retrieved January 1, 2023, from https://core.ac.uk/download/pdf/76215728.pdf

Alqahtani, M. (2015). The importance of vocabulary in language learning and how to be taught. International Journal of Teaching and Education, 3(3), 21-34. Retrieved January 11, 2023, from https://www.eurrec.org/ijote-article-213

Aslan, E. (2016). A study on the use of mobile dictionaries in vocabulary teaching. Journal of Language and Linguistic Studies, 12(1), 1-8. Retrieved January 6, 2023, from https://dergipark.org.tr/en/pub/jlls/issue/36116/405556

Basal, A., Yilmaz, S., Tanriverdi, A., & Sari, L. (2016). Effectiveness of mobile applications in vocabulary teaching. Contemporary Educational Technology, 7(1), 47-59. Retrieved January 11, 2023, from https://eric.ed.gov/?id=EJ1105763

Chen, C.-M., Chen, L.-C., & Yang, S.-M. (2018). An English vocabulary learning app with self-regulated learning mechanisms to improve learning performance and motivation. Computer Assisted Language Learning, 32(3), 237-260. https://doi.org/10.1080/09588221.2018.1485708

Gruneberg, M., & Sykes, R. (2007). Individual differences and attitudes to the keyword method of foreign language learning. Taylor & Francis, 4(1), 60-62. Retrieved January 7, 2023, from https://www.tandfonline.com/doi/abs/10.1080/09571739185200511

Hedge, T. (2015). Teaching and Learning in the Language Classroom. Oxford Handbooks for Language Teachers. Retrieved January 7, 2023, from https://www.academia.edu/12364210/TeachingandLearningintheLanguageClassroom

Hossain, M. (2018). Exploiting smartphones and apps for language learning: A case study with the EFL learners in a Bangladeshi university. Review of Public Administration and Management, 4(1), 21-34. Retrieved January 10, 2023, from https://www.academia.edu/36307072/ExploitingSmartphonesandAppsforLanuageLearningACaseStudywithTheEFLLearnersinaBangladeshiUniversity

Karpenko, Y. M., & Horváth, M. A. (2021). Digital storytelling as an educational technology for activating cognitive activity of primary school pupils in foreign language lessons. Information Technologies and Learning Tools, 81(1), 1-12. https://doi.org/10.33407/itlt.v81i1.3149

Kassem, A. M. (2018). The effect of a suggested in-service teacher training program based on MALL applications on developing EFL students' vocabulary acquisition. Academy Publication, 9(2), 250-260. https://doi.org/10.17507/jltr.0902.05

Klimova, B. (2018). Mobile phones and/or smartphones and their apps for teaching English as a foreign language. Education and Information Technologies, 23(3), 1-9. https://doi.org/10.1007/s10639-017-9655-5

Metruk, R. (2021). The use of smartphone English language learning apps in the process of learning English: Slovak EFL students' perspectives. Sustainability, 3(15), 2-17. https://doi.org/10.3390/su13158205

Mindog, E. (2015, November 30). Apps and EFL: A case study on the use of smartphone apps to learn English by four Japanese university students. JALT CALL Journal, 12(1), 3-22. Retrieved January 10, 2023, from https://eric.ed.gov/?id=EJ1107946

Navariz, D. N. (2015). Examining teachers' acceptance and use of mobile applications and ipads in instruction through the Technology Acceptance Model: A Mixed Methods Study (Publication No. AAI3712747) [Doctoral dissertation, University of Texas]. Retrieved January 16, 2023, from https://scholarworks.utep.edu/dissertations/AAI3712747/

Nisbet, D., & Austin, D. (2012). Enhancing ESL vocabulary development through the use of mobile technology. Journal of Adult Education, 42(1), 1-20. Retrieved January 8, 2023, from https://eric.ed.gov/?id=EJ1047363

Oxford, R. L. (2003). Language Learning Strategies: What every teacher should know. Escholarship, 1(1), https://doi.org/10.5070/L411004984

Passey, D. (2010). Mobile learning in school contexts: Can teachers alone make it happen? International Journal of Mobile and Blended Learning, 3(1), 68-81. https://doi.org/10.1109/TLT.2009.47

Sampson, D. G., Ifenthaler, D., & Spector, J. M. (2014). Advances in cognitive psychology, educational technology, and computing: An introduction to the special issue. Computers in Human Behavior, 32(1), 290-291. https://doi.org/10.1016/j.chb.2013.08.018

Sanchez, A., & Manchon, R. M. (2007). Research on Second Language Vocabulary Acquisition and Learning: An Introduction. International Journal of English Studies, 7(2), 7-16. Retrieved January 6, 2023, from https://digitum.um.es/digitum/bitstream/10201/2582/1/2595023.pdf

Silverman, R., & Hines, S. (2016). The effectiveness of a digital game-based vocabulary intervention for English Language Learners. Journal of Educational Psychology, 101(2), 305-314. https://doi.org/10.1037/a0014217

Subekti, N. B., & Lawson, M. J. (2007). Vocabulary acquisition strategies of Indonesian postgraduate students through reading. International Education Journal, 8(2), 485-496. Retrieved January 8, 2023, from https://eric.ed.gov/?id=EJ834283

Susanto, A. (2017). The teaching of vocabulary: A perspective. Jurnal KATA, 1(2), 1-14. Retrieved January 7, 2023, from https://www.researchgate.net/publication/320571421THETEACHINGOFVO-CABULARYAPERSPECTIVE

Suwantarathip, O., & Orawaiwatnakul, W. (2015). Using mobile-assisted exercises to support students' vocabulary skill development. Journal of Education and Practice, 14(1), 1-10. Retrieved January 12, 2023, from https://files.eric.ed.gov/fulltext/EJ1057347.pdf

Takac, P. V. (2008). Vocabulary learning strategies and foreign language acquisition. Clevedon, UK: Multilingual Matters Ltd. ISBN: 978-1-85359-923-8. Retrieved January 7, 2023, from https://www.academia.edu/48754366/Vocabulary_Learning_Strategies_and_Foreign_Language_Acquisition_V_Pavi%C4%8Di%C4%87_Taka%C4%8D_Multilingual_Matters_Ltd_Clevedon_2008_vii_197_pp

Thornbury, S. (2015). How to teach vocabulary. Harlow, England: Pearson Education Limited. ISBN: 978-1-292-09074-5. Retrieved January 7, 2023, from https://www.academia.edu/18950782/How_to_teach_vocabulary_by_Scott_Thornbury

Walters, J. L. (2013). English language learners' reading self-efficacy and achievement using 1:1 mobile learning devices [Doctoral dissertation, University of California]. Escholarship. Retrieved January 6, 2023, from https://escholarship.org/uc/item/0096v6fn

Wu, Q. (2015). Designing a smartphone app to teach English (L2) vocabulary. Computers & Education, 85, 170-179. https://doi.org/10.1016/j.compedu.2015.02.013

Yang, J. (2013). Mobile Assisted Language Learning: Review of the Recent Applications of Emerging Mobile Technologies. Canadian Journal of Learning and Technology, 6(7). Retrieved January 14, 2023, from https://files.eric.ed.gov/fulltext/EJ1077095.pdf

Zhang, J. (2015). English vocabulary teaching in Chinese junior high schools [Master's thesis, Purdue University]. Purdue e-Pubs. Retrieved January 7, 2023, from https://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1656&context=open_access_theses

APPENDIX

Questionnaire Items

Usability Category

1- I think mobile vocabulary apps are easy for my students to use.

2- I think mobile vocabulary apps are simple and usable for my vocabulary teaching.

3- It brings more advantages than disadvantages to my students when they learn vocabulary through mobiles.

4- It is easier to view, review and edit on mobiles for my students.

5- Mobile apps have advantages of accessibility, portability and multimedia.

Motivation Category

6- It is enjoyable for my students to learn vocabulary through mobile phones.

7- The use of mobile phones motivate my students to be both active and interactive during vocabulary learning activities.

8- Mobile apps increase the level of interest of my students in learning vocabulary.

9- Using vocabulary apps encourage my students to participate in activities and contribute to group work through the interaction on mobiles.

10- My students would like to continue using mobiles to learn vocabulary.

Collaboration Category

11- I think that using mobile vocabulary apps regularly would drive my students to participate more in exercises.

12- My students like the collaborative work on vocabulary learning via mobiles.

13- Vocabulary learning through mobiles enable my students to fully interact with each other.

14- My students can benefit considerably from their peers through mobiles during their vocabulary learning.

15- Working on vocabulary learning through mobile phones facilitate the collaboration among my students during group study.