

**THE IMPACT OF QUIZZZ ON THE VOCABULARY DEVELOPMENT AND
MOTIVATION OF TURKISH EFL LEARNERS**



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JANUARY 2019

**THE IMPACT OF QUIZZZ ON THE VOCABULARY DEVELOPMENT AND
MOTIVATION OF TURKISH EFL LEARNERS**

**A THESIS SUBMITTED TO THE
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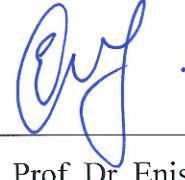
BY

Gülsüm ÇEVİKBAŞ

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
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Approval of the Graduate School of Educational Sciences



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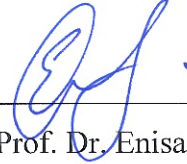
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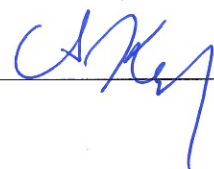
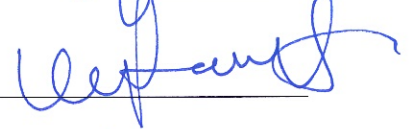
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ABSTRACT

THE IMPACT OF QUIZIZZ ON THE VOCABULARY DEVELOPMENT AND MOTIVATION OF TURKISH EFL LEARNERS

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The major purpose of this study is to investigate the impact of mobile application tool, Quizizz on the vocabulary development and motivation on Turkish EFL students studying at a preparatory program at a foundation (nonprofit-private) university in İstanbul, Turkey. The study also aimed at finding out the perceptions of the students and their instructor about incorporating this mobile tool to learn and practice target vocabulary in the classroom. To achieve the purpose of this quasi-experimental study, data was gathered through pre- and post-vocabulary test, MALL motivation pre- and post-questionnaire and reflective journals from 37 Turkish learners of English (elementary level). The findings revealed that the implementation of Quizizz had an overall positive effect on the vocabulary development as well as on the motivation of the participating students. The gathered findings also revealed positive perceptions of students and their instructor about the integration of Quizizz as a mobile tool to learn and practice vocabulary in English classrooms.

Keywords: Vocabulary Development, MALL, Quizizz, Student Motivation, EFL.

ÖZ

QUIZIZZ'İN İNGİLİZCE'Yİ YABANCI DİL OLARAK ÖĞRENEN TÜRK ÖĞRENCİLERİN KELİME GELİŞİMİ VE MOTİVASYONU ÜZERİNDEKİ ETKİSİ

Çevikbaş, Gülsüm

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Bu çalışmanın temel amacı mobil uygulama olan Quizizz'in bir vakıf üniversitesinin hazırlık okulunda okuyan, İngilizce'yi yabancı dil olarak öğrenen Türk öğrencilerin kelime öğrenimi ve motivasyonuna etkisini araştırmaktır. Bu araştırmanın diğer bir amacı, öğrencilerin ve öğretmenin kelime öğrenme ve geliştirmek için derste kullanılan bu mobil uygulama hakkındaki algılarını incelemektir. Bu amaç doğrultusunda, yarı-deneysel olan bu araştırma için 37 öğrenciden (başlangıç seviye), deney öncesi ve sonrası test, motivasyonu ölçeği öncesi ve sonrası anket ve yansıtıcı günlüklerden oluşan veriler toplanmıştır. Araştırma sonucunda, mobil uygulama, Quizizz'in öğrencilerin kelime gelişimi ve motivasyonu üzerinde olumlu etkisi olduğu görülmüştür. Ayrıca, yansıtıcı günlüklerden toplanılan veriler, öğrencilerin ve öğretmenin derste kullanılan bu mobil uygulama hakkında olumlu görüşler bildirdiği sonucunu ortaya koymuştur.

Anahtar Kelimeler: Kelime Gelişimi, Mobil Öğrenme, Quizizz, Öğrenci Motivasyonu, Yabancı Dil Olarak İngilizce.



To my family

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Chapter 1

Introduction

1.1 Theoretical Framework

Vocabulary learning and teaching is an indispensable part of language teaching. Without adequate vocabulary knowledge, other components of language which are grammar, listening, reading and writing would be incomplete. Therefore, in recent years, many researchers have contributed to the area of vocabulary teaching and learning methods (Sinaei & Asadi, 2014; Azabdaftari & Mohazeb, 2012; Muñoz ;Merino, 2017; Cadieux Bolden, Hurt & Richardson, 2017; Thornton, 2017; Gaber, 2015; Lakshmi & Nageswari, 2015; Gu, 2003). For example, Wilkins (1972) puts forward the significance of vocabulary as, “Without grammar very little is conveyed, without vocabulary nothing can be conveyed” (p. 111-112). Despite the vitality of vocabulary acquisition, it is a skill which shows variability in learning (Zareva, Schwanenflugel & Nikolava, 2005). In other words, a single alteration or adaptation in the method of teaching vocabulary can show variability in terms of rate of success in vocabulary development. It is still a controversial whether there is only one certain method to be effective or to specify one, if so. Specifically, every research aiming to discover the effective way to learn a vocabulary, is shown to be unique to its own environment in which the study is carried out with regard to participants, instruction, technique used for vocabulary, etc., and thus is proved to be a very broad area to be investigated (Vermeer, 2001). The scientific inquiry of this research is to find a motivating and effective way to anchor EFL learners’ knowledge of vocabulary.

Motivation has a significant effect in acquiring second language. As mobile language learning has been mostly favoured and thus adopted by young adults, the positive effects have been tremendously spotted on their motivational status along with vocabulary learning (Twining et al., 2005; Kearney, 2012; Liu & Chu, 2010; Baran, 2014; Su & Cheng, 2015; Hwang & Chang, 2010; Ushioda, 2013; Kim, 2013; Wang & Smith, 2013; Fontecha & Gallego, 2012; Deng, 2013; Berns, 2016). Without a good vocabulary knowledge or skill to cope with vocabulary, the force which enables the

learner to tackle with feelings related to vocabulary learning and encourage oneself for further studies, namely motivation is outmost feature in a language learner (Moya, 2014). Shroff & Vogel (2009) has put forward motivational factors including *challenge*, *feedback* and *interest*. Schroff & Vogel (2009)'s motivational theory suggests that traditional learning materials have shifted towards m-learning. In this regard, Quizizz which is a mobile application to learn and practice vocabulary has been introduced to classrooms with its pedagogical implications by a great deal of researchers (Godwin & Jones, 2011; Dizon, 2016; Burston, 2013; Chaiyo, 2017). Considering the aforementioned motivational factors, mobile apps could be a solution to enable motivation of the learners.

Digital learning provides various activities that can promote language learning. According to Hulstijn, (1997) these activities may not particularly correspond with the formal learning setting, yet can be embedded in students' daily life. The researcher draws attention on the importance of combining the two language learning approaches together which are incidental and intentional learning. Three psycholinguistic insights of vocabulary learning; *elaboration*, *rehearsal* and *automatization* are emphasized. To clarify, recognizing word forms, using contextual information and background knowledge are strategic competence skills which are required in order for the learner to identify an unfamiliar word when encountered for the first time. In addition to this, according to Pimsleur (1967)'s theory, a new learnt word should be reminded within regular increasing length of intervals. Last but not least, a learner should be able to use a word within a context besides knowing the meaning. Therefore, Quizizz can be a supplementary tool that could fit into this framework in that it promotes incidental learning as well as intentional. Specifically, vocabulary questions in Quizizz are designed within a context, requires use of prerequisite information and word forms, and each vocabulary item is retrieved in regular intervals.

Based on these overviews, the present study signifies the impact of using mobile application tool, Quizizz, regarding the potentiality to assist enhancing vocabulary knowledge and motivation. Furthermore, the study aims to investigate the perceptions of the students and the teacher about implementing this mobile application tool to teach and learn vocabulary in EFL classrooms.

1.2 Statement of the Problem

As this study is conducted in an EFL learning environment, teaching vocabulary let alone teaching English becomes a process which takes a lot of time (Longhurst, 2013). In an EFL environment, as there is no opportunity for foreign language learners to learn the language or obtain additional help from outside class, in-class instruction given and all the class activities have a vital importance (Schmitt, 2010). In relation to this, time spent for vocabulary practice is also critical. Therefore, one of the major problems for English language teachers is to manage time spent for vocabulary practice effectively and wisely. Another problem which teachers confront with teaching is keeping up with technological development. It is an imperative that classrooms are equipped with relevant technology to provide the needs for Generation Z which is the term used for the young generation who is born and brought up around sophisticated technology (Oblinger & Oblinger, 2005).

As today's children are intertwined with the latest technological developments, it becomes almost impossible to dissociate one from the other (Lei, 2009). Therefore, technology literacy and coping with technology expert students are skills that are sought in teachers (Mumtaz, 2000). Students on the other hand, prefer technology-based learning rather than outdated methods and techniques which include wordlists and translations. Also, the use of technology brings up another commonly encountered problem for teachers which are dealing with unmotivated students, especially when memorization and constant practice is involved. Along with these classroom practices, students struggling to learn and practice a great deal of vocabulary items and having difficulty in engaging themselves leads to low motivation. For these reasons, being a teacher of the young generation requires ability to attract attention and enable student motivation. Incorporation of a mobile application tool, specifically, Quizizz motivates students with several features including sound effects and memes, competitive quiz games and interactivity. These features make the app a game-like device in that while

the enjoyable sound effects and memes capture the attention of the students, competitive quiz games provide an exciting and competitive environment. Above all, internet connection and the use of privileged mobile phones of the students is all needed to join the game easily without any installation or signing up. Quizizz also gives the student the opportunity to do the quizzes online outside the class for extra practice. The teacher can select either from already-made quizzes or create one of her or his own accordingly to the students' needs, performance, age, profile and learnt content. This feature gives the teacher to control her or his classroom and learning materials.

On the other hand, a proper assessment tool and giving feedback is inevitable process of well-prepared material. Quizizz enables feedback for students and teachers after and even during the quiz games. Specifically, the teacher has the option to hide showing the answers of the online quiz homework and give detailed feedback in class. As can be seen, aside from the feasibility, portability and ubiquity of the mobile application Quizizz, the features provide many opportunities both for the teacher and the student which bid hope for the aforementioned problems.

1.3 Purpose of the Study

Acquiring a sufficient range of vocabulary is required in order to understand and use the target language. Because of a lack of vocabulary knowledge, a great number of learners face with difficulties when comprehending and expressing the target language both in oral and written forms. Therefore, vocabulary gain of learners should be supplemented with more facilities. For this reason, the purpose of this study is to investigate the effectiveness of the mobile application, Quizizz, on gaining vocabulary knowledge and the motivational change in students. Another purpose of this study is to find out the perceptions of students and their instructor about the use of mobile application tool, Quizizz to learn and practice vocabulary in the classroom.

1.4 Research Questions

To achieve the objectives of this study, the following research questions were addressed:

RQ#1. Is there any statistical difference between the vocabulary gain scores of the control (traditional) and experimental (Quizizz) groups?

RQ#2. Is there any statistical difference between the motivation level of the experimental group before and after the implementation of Quizizz?

RQ#3. What are the perceptions of students in the experimental group and their instructor about using Quizizz to teach, learn and practice vocabulary in the classroom?

RQ#4. What are the perceptions of students in the control group and their instructor about using traditional way of instruction to teach, learn and practice vocabulary?

1.5 Significance of the Study

There have been many studies carried out measuring the effectiveness of mobile assisted language learning (MALL) on improving vocabulary knowledge. It has been acknowledged by many researchers that conducting mobile assisted language learning by making use of game-based devices into the lesson, is significantly helpful to practice or even learn a topic. Particularly, much of the research on MALL investigates its effectiveness on vocabulary learning. In other words, most research which embraces MALL and its effectiveness on vocabulary development has revealed some results towards having a positive impact. Despite this, it is doubted that adequate studies have examined the mentioned relationship with Quizizz since it is a novice game-based learning application which has not been tested nor known by researchers or language teachers. Therefore, although this study will give insight into MALL and effectiveness on vocabulary learning, specifically speaking, it will enable an opportunity to reveal results on Quizizz relationship with vocabulary development.

Motivation has also become a household term which has become commonly used in the psychology field besides English language teaching (ELT). Motivation is a term to have validity to describe various phenomenon in many fields. Motivation seems to emerge as a feature of students which is seen as a changeable and measurable variable to be affected by several school related variables. Therefore, despite the fact that the investigation area of motivation has spread to wide scope, an intersection set is found with a narrower variable, vocabulary development through MALL. In other words, this study enables student motivation, as a broader area, to be narrowed down and examined by revealing results related to its relationship with a variable which is MALL. Therefore, this study is an opportunity for researchers and teachers of other classrooms with similar teaching problems and students, in that it deals with common problems teachers encounter with in their own teaching environment. Moreover, although being a quasi-experimental research, this study focuses not only the different results between the two groups, experimental and control group, but also the test results among the group making a distinctive and profound one. Therefore, this study investigates the impact of incorporating MALL application tool, Quizizz in a classroom setting on improving students' vocabulary and motivation.

1.6 Definitions

EFL: English as a Foreign Language (Mayo, 2003).

ELT: English Language Teaching (Harmer, 2007).

MALL: Mobile Assisted Language Learning (Kukulka-Hulme, 2005; Samuels, 2003; Traxler, 2007).

Vocabulary Performance: After expanding their vocabulary size, how well and correctly the students use the target words that they need to know in order to communicate effectively "Words in speaking (expressive vocabulary) and words in listening (receptive vocabulary)" (Neuman & Dwyer, 2009, p. 385).

L1: First language (Cook, 2001). In this study, L1 refers to learners' mother tongue; Turkish.

L2: Second language (Winke, 2007). In this study, L2 refers to English.

Chapter 2

Literature Review

2.1 Definition of Vocabulary Knowledge

It is not clearly defined what vocabulary knowledge or the exact amount of vocabulary knowledge is or should be for a language speaker because the concept of knowing vocabulary tend to differ among many researchers as well as native and non-native speakers of the language (Nation, 2000). It is suggested that second language learners need to learn a large quantity of vocabulary, which is an estimated number of 1000 of words for a native speaker; yet, remaining unascertained for non-native speakers of the language. While lexical competence persists to be a complex phenomenon and thus a controversial topic, different dimensions to vocabulary knowledge has been made. Zareva (2005) argues that receptive and productive acquisition are as the two interconnected aspects of knowing vocabulary. In other words, there is a difference in knowing vocabulary for comprehension purposes and production purposes. With that said, although some inequalities are left behind since the speaker of the language, whether it is native or non-native speaker, can determine how much to value vocabulary. Nevertheless, the distinction between native and non-native learners in the case of defining vocabulary knowledge cannot be ignored.

Although it sets a limited explanation to what vocabulary knowledge is, knowing a word is also defined as associating the word with another word which is known by the learner (Nation, 2001). More specifically, when the speaker relates the target word to another word which is already known and is generally the word in L1, it is recalled by the learner. Recalling on which word lists are based, are stated as not being very effective since vocabulary knowledge is not only compromised of relating to the meaning, but also the ability to construct a grammatical sentence with it. To put it in another way, knowing a vocabulary requires the knowledge of what constitutes the target vocabulary and knowledge of linguistics which includes knowing parts of speech and grammar structure of the context of vocabulary.

Kieffer & Lesaux (2007) suggested that vocabulary and reading have a reciprocal relationship. According to the researchers, knowing a word means more than knowing the definition. In fact, knowing a word includes the knowledge of different aspects of knowledge. To illustrate, other than the literal meaning, the knowledge of other words related to the target word, connotations in different contexts and other forms of the word is necessary. It is highlighted that students who master quite a lot vocabulary achieve breadth of vocabulary knowledge. Yet, only with the notion of these aspects of word knowledge can students have a depth of vocabulary.

To sum up, different aspects to defining vocabulary knowledge are discussed and it can be concluded that defining vocabulary knowledge is characterized upon linguistics, distinction of the concepts; breadth and depth, receptive and productive, native and non-native speakers of the language.

2.2 Learning Vocabulary in EFL Classrooms

Vocabulary learning in an EFL classroom environment as part of foreign language learning process is very significant to use oral and written skills. Harmer's (1991) words best explain the place of vocabulary, "If language structures make up the skeleton of language, then it is vocabulary that provides the vital organs and the flesh" (p. 153). To this respect, it will not be wrong to say that vocabulary is a vital component of a language. Regarding this, the issue of how to teach vocabulary in an EFL classroom environment comes into prominence. Various views on vocabulary teaching in EFL classrooms have been proposed.

To begin with, Webb (2005) focused on two aspects of language which are receptive and productive skills. He suggests that it is important to focus on both of the skills, receptive and productive, which the former requires developing meaning whereas the latter form. Yet, when teaching vocabulary in classroom instructions, teachers mostly focus on learning tasks which require receptive skills rather than productive since the former is relatively easier to implement. Specifically, receptive skills are involved in matching exercises, word lists, looking from dictionary and pairing words together to

gain and practice vocabulary; on the other hand, cloze tests and writing and speaking activities necessitate productive skills. Speaking with regard to the researcher, the four skills which are reading, listening and writing and speaking are all observed to benefit a good knowledge of vocabulary. Thus, the two aspects of the language are equally essential.

Staehr (2008) contributed to teaching vocabulary and its concern with regard to four skills of language. He contends that a lack of good vocabulary knowledge hinders a good listening skill more than any other variable. Similarly, in his studies, he links the success in writing directly to vocabulary knowledge and use in that according to many teachers' judgments in assessing writings, out of any criteria, content, grammar and mechanics, vocabulary use was observed to be the most affective. In another saying, the knowledge of sophisticated vocabulary and the ability to form it correctly is acknowledged as a superior to other aspects of language.

Besides comparing vocabulary knowledge with other components of the language, four skills, in terms of its effectiveness, vocabulary can also be learnt through peculiar methods used in most classrooms. According to Gass & Selinker (2001), there are two types of vocabulary learning which are incidental and intentional learning. More specifically, intentional learning takes place when instruction and learning tasks carried out in the classroom serve the purpose of teaching and practicing foreordained target vocabulary items. On the other hand, incidental learning is "by-product of something else". That is to say, it occurs through a reading or a listening exercise, yet it does not pursue a goal to teach target vocabulary.

The advancements in technology seem to have divided researchers into two on different views about using technology inside the classroom. Most researchers have favoured the integration of technology in vocabulary learning and practicing (Evans, 2001; Mishra & Koehler, 2006; Hashanat, 2014; Shyamlee & Phil, 2012). On the other hand, another group of researchers still support the traditional methods in teaching vocabulary, particularly, mnemonic devices and reading comprehension activities (Zhang, Song & Burston, 2011; Banegas, 2012; Thornbury & Meddings, 2001).

As discussed above, many aspects of language particularly, grammar is known to be the recipe for a language; nevertheless, vocabulary is acknowledged to be the key

element to hold the language together. Undoubtedly, language to be produced can be understood with incorrect grammar, it cannot be understood with incorrect use of vocabulary.

Vocabulary is also important for gaining receptive skills to master a certain level of vocabulary is a necessity to make sense of the wholesome as well as the piece and parts of the language. To be specific, getting the intended knowledge and the general idea is crucial as much as being aware of the bits and pieces of the knowledge which can be comprised of cohesion, coherence and strategic competence of the language is important.

While there are sufficient reasons for justification of vocabulary learning, the method of learning is also discussed. Traditional methods including flashcards and note taking as well as implementation of technology are helpful techniques especially for learners with different learning intelligences. To elaborate, note taking suits learners with verbal intelligence, whereas flashcards are more appealing for learners with good visual memory. Similarly, being in technology age and surrounded with numerous technological devices require incorporation of technology to the classroom. In our age especially, younger generation is brought up with all kinds of technology and thus has addiction to using mobile devices for anything, everywhere which brings modern day classes to be equipped with technology. What is more, use of mobile devices in class can be beneficial in terms of saving time, being a source of motivation and instant feedback and more.

2.2.1 Explicit and implicit vocabulary learning. In foreign language classrooms, explicit and implicit learning is practiced by most teachers and the interrelationship of the two terms is discussed by researchers (Burgess & Etherington, 2002; Decarrico, 2001; Choo & Pandiran, 2012). Hulstijn (2003) suggests that implicit learning happens during a fluent communication when the two parts have no trouble in understanding each other and provide transmission of information. However, when something in the transmission goes wrong, explicit learning occurs because the two parties become aware of linguistic features and employed with construction of the process linguistically. In the

light of this information, language acquisition is implicit while learning about knowledge is explicit (Ellis, 2005).

Another explanation sheds light on the difference between explicit and implicit learning. “Awareness at the point of learning” defines the difference of explicit from implicit learning by Schmidt (1994, p.20). Implicit learning requires serial of associations in the mind and also synthesizing the information, segmenting components of the knowledge and by that forming organized structures out of these. By this means, a smooth and fluent communication can occur with the connection of the information.

The distinguish between explicit and implicit learning, brings about the urge to understand intentional and incidental learning since these can be confused or used interactively with the others respectively (Hulstijn, 2003). To illustrate, the learner acquires knowledge implicitly through incidental instruction. On the other hand, explicit learning is the awareness which the learner gains or it is the attention given deliberately while trying to make sense of information received from intentional attempts involving mnemonic techniques or memorizing, etc. Therefore, it can be said that implicit and explicit learning refers to the functioning of the brain or processing knowledge, whereas incidental and intentional learning refers to methodology and techniques involved in receiving and gaining knowledge.

The effectiveness of implicit and explicit learning is still questioned and discussed. As for Krashen (1989), implicit teaching is favoured emphasizing vocabulary growth is a result of competence without instruction, and claims that only with comprehensible input which involves leisure reading and listening to stories can language acquisition be possible. While Krashen (1989) regards explicit teaching unnecessary, Hunt and Beglar (2005) argues that not only achieving success on tests and word recognition but also for reading comprehension tasks, an early explicit teaching of vocabulary is required. Also, noticing and recycling vocabulary can be achieved with only explicit teaching which is a provision of storing knowledge to long term memory.

To summarize, while a distinguish between the two types of learning, explicit and implicit, is made, and both are discussed with their effectiveness with regard to vocabulary learning, it is also crucial that incidental and intentional learning is distinguished with the other two terms respectively.

2.2.2 Receptive and productive skills in vocabulary. Using receptive and productive skills is a crucial aspect of vocabulary learning in learning a foreign language. It is an aspect that needs to be considered by teachers when teaching vocabulary. Reception and production of vocabulary refer to different aspects of skills individually (Laufer, 1998). Receptive vocabulary knowledge relates to the size of the vocabulary which the learner has stored in mind, and is required for the recalling process during an activity which calls for the use of receptive skills, reading and listening. Particularly, receptive skill in vocabulary is utmost required skill for a success in reading proficiency (Stahear, 2008). Nevertheless, it is argued that assessing learner's knowledge of vocabulary only by the measurement of the size of vocabulary and the performance on recalling the meaning of vocabulary is not enough. Therefore, another corresponding ability to measure vocabulary is the production of the vocabulary that is how well the learner can use the recalled vocabulary in an activity which requires productive skills which are writing and speaking. Similarly, according to Webb (2008), there is a close relationship between the learner's proficiency level in reading and listening skills and how much of the receptive skills are used. Likewise, how much of productive skills a learner has indicates the success in writing and speaking. Therefore, it is thought that using and applying productive skills is more difficult and demanding because it involves not only knowing the meaning but also individual and in-depth knowledge of each vocabulary. In relation to the development of the two aspects of vocabulary skills, Zhou, (2010) contends that it is much faster to develop receptive vocabulary knowledge at lower levels of English proficiency. Conversely, at higher levels, increase in productive knowledge outperforms reception, yet productive vocabulary does not reach that of receptive. This may indicate that passive knowledge requires a higher level of thinking and the ability to transform the active vocabulary into use. Therefore, passive vocabulary knowledge is assumed to necessitate larger vocabulary than knowledge of active vocabulary.

In the light of the method of vocabulary teaching with respect to active and passive skills, Laufer & Goldstein (2004) suggest that active skills of vocabulary should be thought apart from passive in that either of the two skills affect the other. Passive

vocabulary does not bring about the use of active vocabulary knowledge, so having a good receptive knowledge does not necessarily mean that a learner can use vocabulary correctly. To elaborate, receptive and productive skills should be considered separately because the fact that the learner cannot use a word productively does not mean that the vocabulary is not learnt or known, but a control has not been developed over access skills.

2.3 Approaches in Vocabulary Teaching

Many methods and approaches in foreign language teaching have been established and vary according to different aims, style, understanding, needs of the age and context and community (Felder & Brent, 2005; Castello, 2015). Among the all, the most debated and influencing method is the Grammar Translation Method (GTM) and Communicative Approach. In the time of GTM was developed and become to be a widely confirmed and applied method by many educators, the method of teaching based on continuous drilling, and repetition (Shejbalova, 2006). As the name implies, language was taught by translating target language into native language, therefore, it can be said that as well as grammar, vocabulary was taught fully by memorization of the words meanings and it was form focused. In contrast to GTM, teaching through Communicative Approach depends on real life conversations, speaking and writing. Language was seen as set of form to be practiced in GTM, whereas in Communicative Approach, acquiring language through natural process. Despite various methods, as Brown (2002) asserts, there is no single method that teaches language perfectly. As enlightened teachers, the best method is the one that is formed by considering differences in our classrooms and being aware of the different needs and expectations.

Along with GTM, Communicative Approach and eclectic method which signified methods can be developed by taking into consideration various features of the teaching environment, vocabulary teaching could not be left behind. The vitalism of vocabulary can be vividly illustrated by Wilkins (1972) with, “There is not much value in being able to produce grammatical sentences if one has not got the vocabulary that is needed to convey what one wishes to say” (p. 97). When it comes to the question, “How to teach and implement vocabulary in the classroom” there are different views put

forward. The following table shows the principles of vocabulary teaching by Thornbury (2002, p.148) and Brown (2002, p.55-70);

Table 1
Principles of Vocabulary Teaching

<i>Thornbury (2002)</i>	Repetition	Retrieval	Spacing
	Use	Cognitive Depth	Personal Organizing
	Imaging	Mnemonics	Motivation
<i>Brown (2002)</i>		Attention	
	Automaticity	Meaningful Learning	Anticipation of Reward
	Intrinsic Motivation	Strategic Investment	Language Ego
	Self Confidence	Risk Taking	Language Culture Connection
		The Native Language Effect	

Thornbury (2002) focused on the cognitive aspect of vocabulary teaching. According to the researcher, information which is gained is stored in the short-term memory temporarily, hence should be passed on to the working memory in order for vocabulary to be permanent. The table shows various methods which accounts for the practice and use of vocabulary in the working memory.

Zimmerman (1997)'s statement supports that of Brown (2002) in that vocabulary learning is a combination of different abilities which involve recalling information, comprehending a text, inferring the meaning and communicating in written and oral language. Thus, a single method is not sufficient to address the needs of the learners

which is comprised of different methods including drills, skill building exercises, listing and memorizing.

Hunt & Beglar (2002) contributed to and expanded on the approaches to vocabulary teaching. According to them, dictionary learning was an efficient way to teach vocabulary because bilingualized dictionaries not only provide the L1 synonym of the word but also the L2 definition along with an example sentence. More specifically, learners should be taught to focus on good sentence examples as an opportunity to examine the word in its context since it is an important skill which needs to be developed by independent learners to guess the meaning of the word from the context. In addition to this, bilingualized dictionaries are said to make sense of the collocations, associations and grammatical patterns along with the meaning of the words. Nevertheless, despite the effectiveness of using bilingualized dictionaries, unless there is a relationship with another known word, it is not possible to guess the correct meaning, so it is a more appropriate method to be developed by learners of higher levels.

Following this, Hulstijn (1997) puts forward explanations for why a more specific and a common method, keyword method, is not preferred to be used in classrooms. He suggests this method for a small amount of vocabulary as utterance is important rather than its use. Thus, keyword method calls for use of receptive skills and involves unnatural and inauthentic activities along with.

A related method to keyword method, mnemonic method is also based on list learning. Likewise, the vocabulary is learnt through receptive skills independent of other aspects of language. To put it in another way, it lacks the meaning relationship of the target vocabulary with other words or features of the sentence in which is used and completely depends on listing or memorization. That is to say, vocabulary is acquired through not only knowing the meaning but also noticing other features of language which are syntactic, pragmatic and emotional information (Gu & Johnson, 1996).

2.4 Taxonomy of Vocabulary Learning Strategies

A number of researches have been conducted on the strategies of language learning by researchers (Lan and Oxford, 2003; Macaro, 2001; Tseng, Dörnyei &

Schmitt, 2006). Language learning is about recognizing and establishing different aspects of language which are motivation and needs of learners, the learning environment and strategies used for process of learning (Asgari, 2011). It is important that students are taught different strategies in learning since learners are suited by different learning styles and multiple intelligences. Nevertheless, Schmitt (1997) suggests that vocabulary is such an important part of language learning that neither VLS nor LLS can be defined separately from one another.

Vocabulary knowledge is no doubt prerequisite in all the four skills of language (Alkhofi, 2015). Yet, the matter of how much of vocabulary is sufficient amount to know raises attention. According to Adolph and Schmitt (2003), in order for a person to acquire a language approximately 3,000 words are needed to be mastered and put to use to fully comprehend. Similarly, a sufficient level of foreign language is achieved by %95 of vocabulary knowledge (Groot, 2000). However, gaining vocabulary knowledge and putting learnt vocabulary into use is a slow process that needs time and effort (Nation and Waring, 1997). With the classification of learning strategies, students can learn to control their own learning and become more autonomous (Chamot, 1999). Sanaoui (1995) confirms that vocabulary learning is gained the best through a systematic way of learning. For these purposes, various approaches and strategies to learn or teach vocabulary has been suggested (Hatch & Brown, 1995). Specifically, Schmitt (1997), Nation (2001), Oxford (1990) and Gu & Johnson (1996)'s taxonomy of LL and VLS is shown and explained the following parts.

Table 2

Oxford's Taxonomy of LSs (1990)

	Memory
	Creating mental linkages (grouping, associating)
	Applying images and sounds (imagery, semantic mapping, sounds in memory)
Direct	Reviewing well (reviewing after intervals)
	Employing action (physical response or sensation)
	Cognitive
	Practicing (repeating, formally, formulaic)
	Receiving and sending messages (using resources, getting the idea)

quickly)	Analysing and reasoning (deductive, expression analysing, translating, transferring)
	Creating structure for input and output (taking notes, summarizing, highlighting)
<hr/> Compensation <hr/>	
	Guessing intelligently (Using linguistic and other clues)
	Overcoming limitations in speaking and writing (mother tongue, gesture)

Table 2 (cont.d)

	Metacognitive Strategies
	Centering your learning (overviewing and linking, paying)
	Arranging and planning your learning (meta-linguistics, organizing, setting)
	Evaluating your learning (self-monitoring, self-evaluating)
	Affective Strategies
	Lowering your anxiety (relaxation/meditation, music)
Indirect	Encouraging yourself (positive statements, wise risk-taking, rewarding yourself)
	Taking your emotional temperature (body awareness, emotion checklist, diary, sharing feelings)
	Social Strategies
	Asking questions (Clarification/verification, correction)
	Cooperating with others (peer support, interaction with native speakers)
	Empathizing with others (developing cultural understanding, becoming aware of others' thoughts and feelings)

According to Oxford (1990), the main purpose of classifying language learning strategies is to develop a language within a communicative dimension and highlighted that language learning should be treated as a process throughout which the target language is used actively. In relation to this, Lawson & Hagben (1996) points out the importance of using the language within a context for language acquisition.

Oxford (1990)'s taxonomy of language learning strategies focused also on individual differences and considered many different aspects including stage of learning, age, sex, teacher expectations, personality traits, motivation level, and purpose of

learning a language. Similarly, a sex dependent research in classifying learning strategies carried out by Catalan (2003) has revealed that most strategies are used by females and they differ from that of males. These strategies can be lined as; using bilingual dictionaries, guessing from the context, asking peers, verbal and written repetition and spelling

In taxonomy of Oxford (1990) common strategies can be seen in most taxonomy of VLS as memory, cognitive, metacognitive and social strategies. In oxford's taxonomy, strategies are divided into 2 main categories as direct and indirect. Direct strategies include the ones that are linked to the target language, whereas indirect is not, yet support language learning process. A distinct strategy out of the other taxonomies, affective strategy deals with the psychological well-being of the learner, affecting learning process which is confidence, anxiety and self-esteem.

Table 3

Nation's Taxonomy of VLS(2001)

General Class of Strategies	Strategies
Planning	Deciding on words Deciding on aspects of word knowledge Deciding on appropriate strategy Planning repetition
Source	Analysing word parts Using the context Using dictionaries, glosses and etc. Comparing L1 and L2
Process	Noticing (notebooks, flash cards and etc.) Retrieving (remembering prerequisite knowledge) Generating (using the word in a context)

Nation's taxonomy of VLS distinguishes aspects of vocabulary knowledge, sources of vocabulary knowledge and learning processes, thus is divided into 3 groups;

planning, source and process. Planning strategies involve deciding on the frequency, where and how to gain vocabulary knowledge, along with which method to apply for learning to happen. Source strategies deal with where to get the appropriate information; in other words, where to take the reference from. Finally, process strategies include acquiring word knowledge through noticing, remembering, recalling and generating. To elaborate more, while noticing means memorizing the word through word lists, note taking, etc., retrieving means to recall and remember the word using background knowledge. Lastly, generating is linking known words to unfamiliar and newly learnt information through word analysis, word structure, using mnemonic strategies and grids.

Table 4

Schmitt's Taxonomy of VLS (1997)

	Dimension	Learner Tasks
Discovery	Determination	Analysing part of speech, affixes, roots and pictures Guessing, dictionary, wordlists
	Social	Asking teacher, peers Group work
Consolidation	Social	Teacher checks Interact with natives Group study
	Memory	Image word meaning Connecting to personal experience Association Semantic mapping Keyword method Grouping initials Sounds/Spelling
	Cognitive	Note taking Verbal/Written repetition Labelling L2 words Flashcards, wordlists
	Metacognitive	Using L2 media (songs, movies, etc.)

Schmitt's taxonomy of VLS was adopted from Oxford's taxonomy of language learning (1990) as the classification of Oxford's (1990) is obviously applicable to vocabulary learning strategies. Initially, Schmitt (1997) developed 58 strategies and compiled them under 5 strategies which are determination, social, memory, cognitive and metacognitive. Excluding determination, the other ones were inspired from Oxford's taxonomy; however, contributed to own study by adding two dimensions, discovery and consolidation. Discovery stage refers to the strategies which the learner uses to make out the meaning of the word when first encountered. Consolidation on the other hand, corresponds to strategies used for reinforcing the word meaning in the second time. At this point, metacognitive strategy is the ability of the learner to check his/her own vocabulary knowledge, reinforcing if the strategy works or alter to a new one otherwise. Schmitt (1997) explains determination strategies under discovery dimension, as "learners are faced with discovering a new word's meaning without recourse to another person's experience" (p. 205). To be specific, learners guess the meaning from the context or use structural knowledge to discover the word for the first time.

2.5 Mobile Assisted Language Learning

Over the 21st century, the various aspects of communication and information technologies have drastically changed in the way people work. This change has reflected upon English Language teaching with the emerging need for integration of technology into classrooms (Hamamorad, 2016). CALL (Computer Assisted Language Learning) has become involved into language teaching classrooms fulfilling the auditory, visual expectations of students. There is no doubt that in order for student to be successful, his or her participation and engagement level to the learning should be considered. Therefore, an older as well as conventional models of language teaching have left its place to mobile learning which can be the use of any portable device including books, CDs, radios, and related to recent technology (Kukulaska- Hulme & Shield, 2008).

Wide use of mobile learning devices accounts for language learning and thus is applied to most language learning environment (Yang, 2013). Instruction approaches which include the use of mobile learning devices in and outside the classroom environment for the language learning purposes are called MALL which refers to Mobile Assisted Language Learning (Samuels, 2003; Traxler, 2007). However, MALL is often confused with and cannot be distinguished from CALL (Computer Assisted Language Learning). The researcher highlights the difference between the two by referring CALL to “computer technologies” and having it to be used in “any context”. Nevertheless, this definition gives CALL a broader meaning of the concept because it does not differ from MALL. Therefore, MALL can be defined as a subdivision of CALL.

Another definition which clarifies the difference between CALL and MALL is the portability feature in that the latter provides more opportunity to be aside when in need which then fits in more with the mobile and spontaneous lifestyle of the learner when compared to the former one (Kukulka- Hulme, 2009). To put in a different way, MALL corresponds to personal, portable and to new ways of interaction across people.

Trifonova, Knapp, Ronchetti & Gamper (2004) defines mobile learning as “Any device that is small, autonomous and unobtrusive enough to accompany us in every moment” (p.3). Therefore, the keywords for defining mobile learning bring about “anywhere” and “anytime” as in having convenience to be used in every context and every moment (Hashemi, 2011).

In addition to what mobile learning is, mobile learning encourages conversation with the teacher, interaction with peers and develops decision making skills outside the classroom as well inside (Miangah & Nezarat, 2012). Mobile learning devices are claimed to have many features in terms of its feasibility and provision of wide network enabling continuous interaction among people. The two main characteristics of mobile learning devices which make them separable from other learning equipment and even superior to them are portability and connectivity. Specifically, the opportunity to be able to carry mobile devices everywhere without the need of any connection to a source accounts for the portability feature which provides ongoing and interrupted flow of

learning. As for the connectivity, mobile learning devices bare the advantage to connect anywhere in terms of both network and interactivity. To be specific, it is possible to connect different people at the same time regardless of the remoteness. Besides these features, context sensitivity, which refer to the change of data according to the current location and time, and individuality, meaning that activities are personalized for the learners, are other important features of mobile learning devices (Klopfer, Squire & Jenkins, 2002).

2.5.1 MALL in EFL classrooms. A type of technology has always been included in language learning. The first and an accepted method to teach English of early 1990s which was Grammar Translation Method (GTM) involved the use of blackboard being a representative of an early technological device and subsequently, the use of overhead projectors came out. With emerge of Audio-lingual Method, mechanical drilling was aimed at with the use of software computer programs. Further on, as more context aware approaches in language learning gained importance, applications and activities by means of technological devices which promote communication and interaction with one another were engaged into the lesson (Baleghizadeh, 2010). The shift towards communicative language teaching initiated two distinct perspectives of how technology can be incorporated into language learning. The two approaches which are cognitive and socio-cognitive are presented by Warschauer & Meskill (2000) with their pedagogical implications in the classroom learning.

Cognitive Approach. Cognitive Approach puts importance on the psychological path of language learning which the learners are making sense of the linguistic features of the language and dealing with cognitive structures through interaction (Warshauer & Meskill, 2000). Therefore, errors made by the learners are seen as a natural process of language learning and that is the only and essential process through which language can be practiced. Some activities include missing letter completion, examining and scanning reading passages or even observing environment with simulation software programs. It can be understood that, cognitive approach views language learning a trial and error process which the learner goes through whilst having involved in mobile devices.

Socio-cognitive Approach. Socio-cognitive approach puts importance on socialization and interaction within the lesson in the language learning process (Baleghizadeh, 2010). In other words, the learner having chance to use productive skills as well as the receptive skills is viewed as an essential aspect for learning a language. The learner must be given the opportunity to use and practice all the skills he or she has received. Therefore, technological devices play an important role for enabling the learner such sufficient practice of complex output besides reception of input. Some examples of technological devices for socio-cognitive approach can be e-mail or web-based conferences. With such technological activities, the students can use their productive skills through speaking at live conference meetings and writing via e-mailing.

As stated earlier, the emergence of different methods in language teaching brought about the use of different types of technological aid. For example, audiolingual method pioneered audio-based laboratories which emphasized the importance of drilling in language learning. These methods were influential in the way these laboratories were equipped and depended on computer-based teaching approach which later on was called, “computer assisted language learning” (CALL). As more language learning environments incorporated technological tools, it was an imperative for these technological tools to shrink in size. Mobile assisted language learning (MALL) which is a branch of CALL has made its way into classroom instruction taking into consideration its benefits in return for traditional forms. Despite what MALL offers to language learning and teaching in terms of its mobility, practicality and efficaciousness, these mobile devices are to be accompanied by a technology-driven pedagogy since they are instructional tools rather than instructors. Therefore, MALL is further defined within some pedagogical implications in language learning.

Firstly, Chen (2013) defines MALL in a different way by claiming it is a bridge between informal and formal language learning. To clarify, students can support their learnt knowledge inside the classroom with the extra practice outside classroom with activities promoted by technological devices. For instance, students can take photos of new vocabulary learnt in class and post on application designed for educational purposes

and have the chance to interact with their peers which also supports the view of socio-constructivist approach and contextualized language learning.

Miangah and Nezarat (2012) looked closer into the different skills in language and examined the effect of technology on these individually. To begin with listening, it can be said that it is the first step to learning a language. To put it in another way, getting adequate input from the target language is essential to turn it into productive language. So, with the use of mobile multimedia system, learners can reach various listening exercises in order. Multimedia system also enables learners to hear correct pronunciation of words, or even record their own voice to send to the teacher through the application for feedback purposes. Thanks to such mobile service, learners can be engaged into the lesson interactively and they can develop their pronunciation and speaking skills.

Huang (2012) added on the necessity of listening skills and use of technological devices. The researcher suggests that English listening skills can be upgraded easily to a higher level. With the right and appropriate utilization of mobile multimedia system, listening skill of the learner can be improved. For instance, fill in the blank and multiple-choice exercises can be given along with grammar explanations via short message system (SMS). Nevertheless, despite its feasibility and its didactic quality, this practice of the language is thought to be controversial as it does not coincide with the aims of communicative approach of language learning.

As for reading skills, Chen and Hsu (2006) have put forward the PIM system on which English news articles are published for different learner levels. With this system, learners can assess their understanding of the reading text through open ended questions related to the text and vocabulary exercises are also granted to the learner.

Beside the matter of what to teach, many researchers have also expressed opinion on how to teach with technology (Li & Walsh, 2011; Li & Ni, 2011; Cahyani & Cahyono, 2012; Park & Son, 2009). Koehler (2005) published an article which drew attention on the importance of the pedagogy of integrating technology into classrooms and emphasized on devices to be instructional tools rather than instructors as they need to be teacher-led and used with a methodology. Moreover, a highlight has been made on “technology-driven pedagogy” in that a practiced technology and suitable environment

to apply this technology is the goal for a better learning. To make it clear, language learning reaches its full potential when appropriate technological device and activities are bonded with a proper teaching methodology which refers to the pedagogical side of technology use in classrooms. Dudeney (2013) held the belief that blending technology and apps into the lesson has made language learning easier and diverse. Nevertheless, it is not solely the importance of technology that improves learning but how it is put to use. In other words, distinguish between activities which focus on consumption of content and production of language should be made. For this purpose, the researcher emphasizes that importance should be attached to “mobile literacy” which is required for teachers to be able to transform conventional classroom instruction into a mobile and interactive one, and it is in the hands of teachers to keep up with the future’s urging mobility needs.

2.5.2 Implementation of MALL in vocabulary learning. In the last few decades, the widespread use of technology has affected many areas of work including language teaching classrooms (Lakshmi & Nageswari, 2015). With the advantageous features of mobile devices, mobile learning has deployed into language teaching materials. Mobile devices have added a new dimension to the common and traditional way of teaching vocabulary in terms of its functionality, portability and ubiquity. Shih (2011) has tested the effectiveness of functionality and ease of using mobile devices. He concluded that these have a major effect on the use of vocabulary learning app. among students in that students continued to use them for these particular reasons. Although there is some research by Stockwell (2008) revealing that the percentage of use of mobile devices has not outnumbered the use of PCs despite its advantages, vocabulary learning has been achieved greatly via mobile devices (Thornton & Houser, 2003, 2004, 2005). Not surprisingly, the researcher emphasized that in Korean application market, vocabulary apps on mobile devices were the mostly used ones out of any other language learning apps.

The popularity of mobile apps gave rise to diversity of mobile app brands. The mostly used mobile device apps for vocabulary learning have been categorized into five;

self-instruction, simulation, game, problem-solving and repetition which is stated by Jeong, Ko, Lim, Sim & Kim (2010). Along with different varieties of mobile apps, specific learning need that each app promises for the learner is explained below. The specific needs mentioned are feedback for self-assessment, multiple intelligences and interactivity.

Applications, The Buki and Micromandarin are put forward by Godwin & Jones (2011). These allow peer to peer network and work hand in hand with common social network sites. For example, they enable to search for the use of some terms in twitter, practice contextual language via Foursquare. So, these applications are great not only to practice language in its real environment but also an opportunity to provide interactive learning.

An aforementioned need, multiple intelligences can be met with the apps, Pleco and Wordchamp. These apps offer a variety of podcasts and Flash Audio Player to hear the pronunciation of words and their translation at the same time. In addition to auditory needs, visual intelligence needs of learners can be met with the same applications thanks to their image definition of vocabulary (Levy, 2009).

In language learning, error analysis, diagnosis and feedback have been acknowledged as the key for natural learning process (NLP). Thanks to relevant apps which enable feedback, learners can be sent tailored vocabulary practices of whose results can be sent back to them as well as their teachers for close observation of learning process of the student (Bringula, De Leon, Rayala, Pascual & Sendino, 2017).

E-mail and especially, SMS are other useful mobile apps to close the gap that deficiency of interactivity and feedback needs cause for mobile learning (Thornton & Houser, 2005). Specifically, the ubiquity of mobile devices account for the success of enhancing the results in vocabulary learning by sending e-mails and SMS to students for practice. The researchers investigated students' success in learning vocabulary. In their study, students were sent SMS and e-mails every week to cover unknown vocabulary and practiced with relevant exercise provided by the teacher. At the end of the research, students were observed to have benefitted from mini lessons of vocabulary and feedback from the exercises via e-mail and SMS which are sent to them regularly.

In spite of functionality of mobile devices and all the features that apps have to offer, activity management cannot be left all alone to the learner as they cannot know how and when to learn appropriately. For this reason, mobile device learning should be teacher-guided in order for an effective and useful learning. (Nouri, 2014).

2.5.3 Quizizz as a mobile application tool. Quizizz is a mobile app which can be used in classrooms to assist students' learning and teachers in their teachings as well. Besides its rich content and various features, it holds, Quizizz is also very simple and straightforward to operate and integrate into any lesson. By means of any lesson, Quizizz is designed for many subjects other than English including Mathematics, Physics, History, etc. which enables teachers to easily integrate the app into a content-based language teaching syllabus. Various subjects are available in Quizizz:

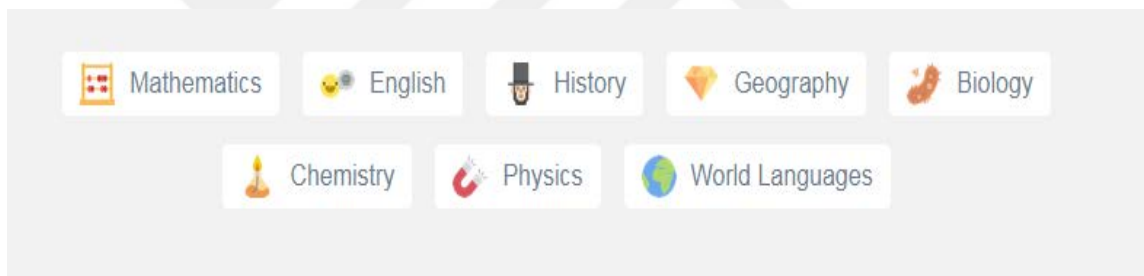


Figure 1. Various subjects in Quizizz

As for analysis of Basic English as a subject, although it resembles Kahoot in terms of outline and objectives of the app, Quizizz has many features to be distinguished from and these features can be examined in three headings; efficacy, assessment and motivation.

2.5.3.1 Efficacy of Quizizz. Efficacy in Quizizz can be provided for both material and time. Quizizz gives the teacher the opportunity to give the target material to be practiced either from self-design of the teacher or from already designed ones. The figure shows how to create a quiz by oneself.

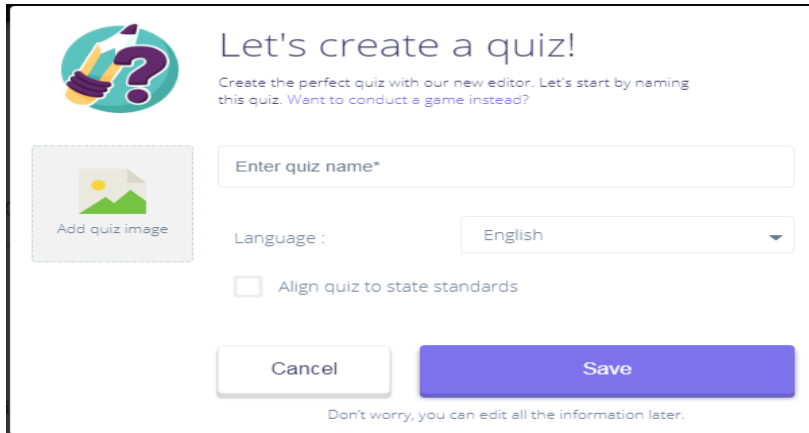


Figure 2. Creating own quiz

Teachers are provided with the opportunity to create and change their material accordingly to their students' needs, performance, content and objectives, whereas using already created quizzes enables teachers to spare time to develop other materials for the lesson. The below figure shows how to search for quizzes which have been created by someone else and shared online use.

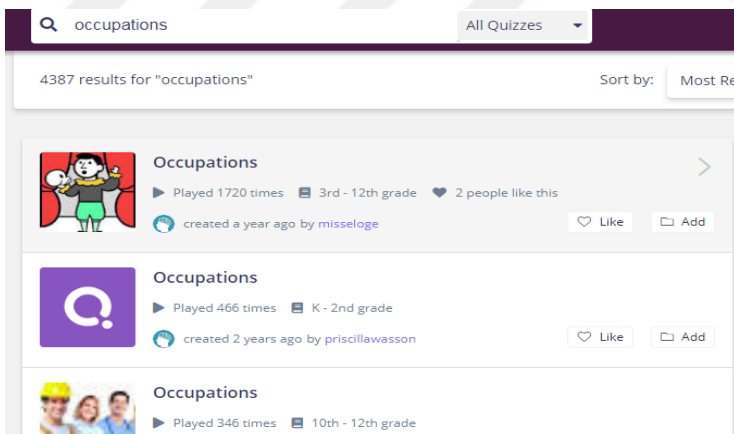


Figure 3. Searching for already created quizzes

Once the target subject to be taught is searched, it shows many different created quizzes related to the subject. Also, from the quiz options, the questions can be previewed, the frequency it has been played, which grade and level it is designed for can be observed by the teacher so that they can easily choose a suitable one to be played by the students. Moreover, teachers can get the chance to archive the already made quizzes and

their own work which they have created or made changes in, so they can create their material portfolio.

Quizizz is a great tool to save time and get the most of it both inside and outside the learning environment. First of all, Quizizz requires no payment for sign up or installation of any application to the mobile phones. It basically requires the privileged mobile phone of the student and an internet connection. With a simple link and a given code by the app, students are ready to join the quiz game as shown by the figure below.

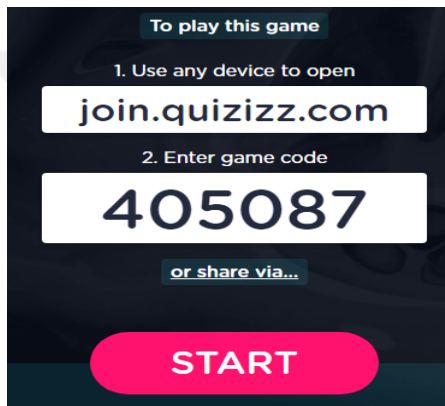


Figure 4. Joining the quiz game

One of the most distinctive features of Quizizz which teachers will make use of is the homework option the app provides. Vocabulary learning and developing permanent knowledge takes long time and practice such that the provided in class time is most of the time not sufficient. Therefore, teachers are obliged to make efficient use of time in class as well as outside the learning environment. With Quizizz, intended material can be given to students as online homework and desired deadline (date and time) can be selected by the teacher.

2.5.3.2 Assessment of Quizizz. Assessment quality in Quizizz is provided both for teachers and students. Teachers have the opportunity to get the whole- class result of the quiz game and individual results of the students as well. This provides the teacher to analyse the overall performance of the quiz, how much of the given input is learnt and which questions are the most problematic ones and take appropriate action accordingly making assessment reach its full potential with accurate feedback to the students. With

Quizizz students can get instant feedback at the end of each quiz question played as in class activity and as homework. However, teachers have the option to hide the answers in the homework so that each question in the quiz can be given by the teacher with detailed feedback in class. The figure shows the overall result of related topic of the quiz game.

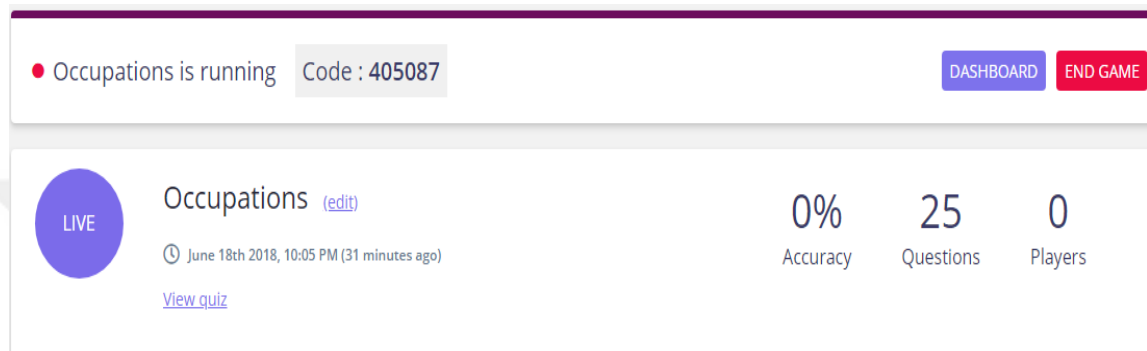


Figure 5. Overall result of the related topic

2.5.3.3 Motivation in Quizizz. Motivation is an important factor to get students into learning a language especially students who correspond to the age of young adults. Young adults are born and brought up with technology throughout their whole childhood either with the purpose of education or entertainment. Therefore, they are occupied intensely with technology in every part of their life, and necessarily with the instinct to keep up with the technology age and thus its needs of today's world. Specifically, Quizizz addresses the needs of technological classroom of a young generation basically since it is played via internet and privileged mobile phones. Moreover, with online homework opportunity, the app corresponds to ubiquity feature of mobile devices as being present "anywhere" and "anytime". Also, students are able to enjoy peculiar sound effects, music and memes which the app provides. Most importantly, the app has game-like features as offering a competitive environment as most games, and a chance to interact with the whole class (Cameron & Pagnattaro, 2017; Kerrigan, 2018). To put it another way, while students practice their vocabulary knowledge, they can have fun, interact with their peers and get appropriate feedback.

2.6. Motivational Factors of Using Mobile Device in Learning

Motivation is accepted by the students and the teachers as an important factor to be successful in the effort to learn a foreign language (Norbrook, 2003). As Dörnyei & Csizer (1998, p. 203) expresses, “Motivation is one of the key learner factors that determine the rate and success of L2 attainment”. Motivation has a great effect on the success, satisfaction, and learner’s perception of his or her own performance in learning a language (Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004). In recent years, many attempts have been made to change face to face traditional ways of classroom learning towards m-learning and promote motivational learning settings. Allowing the use of m-learning applications that reinforce individual student motivation is a duty for teachers (Shroff & Keyes, 2017). For this reason, a motivational model which holds elements from the Self Determination Theory (Deci & Ryan, 1980, 1985; Ryan & Deci, 2000b) is developed by Shroff & Vogel (2009). In the following part, the motivational factors of this model are briefly described.

2.6.1 Perceived competence. Perceived competence is believed to be an important factor of intrinsic motivation. Perceived competence can be explained as the belief of the individual to accomplish a certain task. For instance, a positive comment coming from the instructor can be perceived by the student as a reinforcer to enhance his or her belief to succeed in the task (Bandura, 1982; Harter, 1981).

2.6.2 Perceived challenge. Another factor that is crucial for intrinsic motivation is perceived challenge which is the need for stimulation in the form of challenge. To define challenge in a broader sense, “it refers to individuals’ perceptions that an activity invites them to perform to their full capacities” (Shroff & Vogel, 2009, p. 62). Level of task challenge is typical for an individual, in other words some individuals will be more challenged than others in a given task. Therefore, individuals need to be self-appraised about expectations about goal-directed tasks and ability to achieve these goals.

2.6.3 Feedback. Deci & Ryan (1985) states that getting a positive feedback on individual’s abilities when doing a task, raises the chance of being successful. While,

extrinsic rewards can demotivate the student as they can be perceived as coercive, positive feedback which implies information to satisfy individual's needs enhances intrinsic motivation.

2.6.4 Perceived choice. When the individual is self-determined to accomplish a task, it means that he or she acts out of choice instead of obligation (Reeve, Nix, & Hamm, 2003). When given the opportunity, individuals use available information to make choices for them which intrinsically motivate them towards a goal-oriented task.

2.6.5 Perceived interest. Interest is used in many different contexts, but in education, Dewey (1913) states that interest can integrate outside experience with learning process in the school, promote the student to use his or her prerequisite knowledge and motivate to overcome learning tasks. In learning, interest refers to the person-activity or learner-content interaction (Hidi & Anderson, 1992; Renninger, 2000).

2.6.6 Perceived curiosity. Curiosity influences the individual to act on the environment which emerges desire to discover and understand and know, and thus emerges intrinsic motivation. In order for a student to have curiosity, he or she should possess some prior knowledge. In relation to this, in order to promote curiosity in students, awareness of some gaps, yet manageable to fill, are to be made in their knowledge (Borowske, 2005).

In brief, learner motivation is dependent on several factors which include competence, challenge, feedback, choice, interest and curiosity. According to the presented model, the learner should have the belief that he or she has strength and capacity to overcome a certain task. It is also important that the learner is provided with the power to choose from alternative ways to contribute to his/ her own learning. The task which the learner is being involved in should be challenging enough to raise interest and curiosity to think about the solution of a certain problem, yet at the same time achievable so that the desire to finalize the problem does not dissolve. Finally, for the

continuity of a learning process, constructive and intrinsic feedback is an imperative for the teacher.



Chapter 3

Methodology

This chapter aims to explain the methodology of the study by describing the research design of the study, the setting, target population and participants, procedure of methodology and finally, limitations and delimitations. The procedure of the methodology includes sources of data, data collection procedures, in which types of sampling and data collection instruments are described, implementation of the instruments, data analysis procedures along with reliability and validity.

The research questions investigated for this study are as follows:

RQ#1. Is there any statistical difference between the vocabulary gain scores of the control (traditional) and experimental (Quizizz) groups?

RQ#2. Is there any difference between the motivation level of the experimental group before and after the implementation of Quizizz?

RQ#3. What are the perceptions of students and their instructor about using Quizizz to learn and practice vocabulary in the classroom?

RQ#4. What are the perceptions of students and their instructor about using traditional way of instruction to learn and practice vocabulary?

3.1 Research Design

In this study, quasi-experimental research design which includes both quantitative and qualitative elements was used. The aim was to investigate the impact of implementing Quizizz as an instruction based on mobile learning on vocabulary development as shown in the figure below. The quasi-experimental research design is based on a quantitative and also qualitative data collection instruments which complement one another in the study (Ary et al., 2013). Quantitative data collection tools include a pre/post-test. The qualitative data collection tools consist of reflective journal for the instructor and students of the experimental and control group. The following figure provides a model for the research design of the present study:

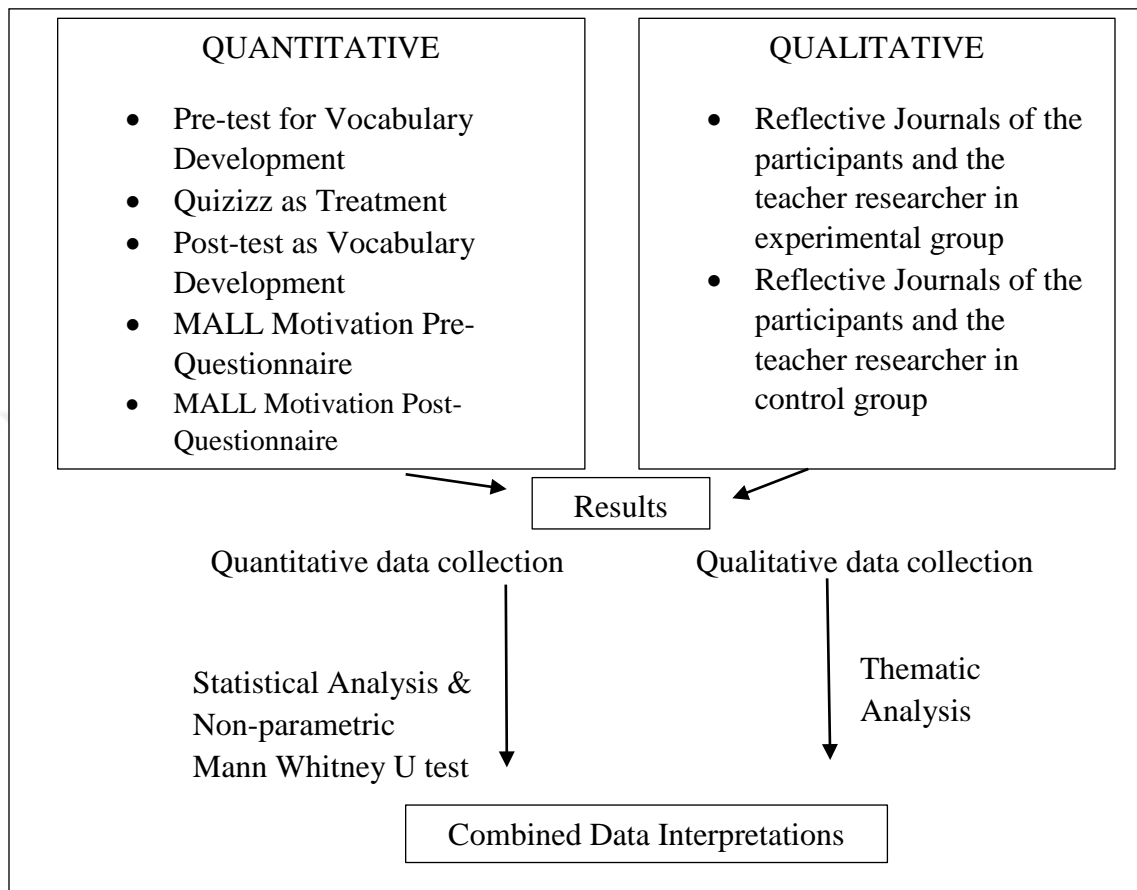


Figure 6. Visual model of the research design in the study

As this study is based on a quasi-experimental research design, the experimental group and control group were provided with different methodology. While experimental group received an instruction integrated with MALL with the involvement of Quizizz, the control group continued on with the regular instruction which envisaged traditional learning methods. In order for a comprehensive analysis of the vocabulary development, to compare the results of the two groups, pre and post-test was applied to both of the groups at the beginning and end of the 7 weeks of implementation of MALL. Likewise, pre and post-test was given to both groups and a motivation questionnaire was given to the experimental at the beginning and end of the 7-week teaching module as to investigate whether a change in participants' motivation level has occurred. Lastly, as a complement to the quantitative data collection tool, qualitative data was collected by

means of reflective journal for the instructor and students. The following table displays the design of this study:

Table 5
Research Design of the Study

	Groups	
	Experimental	Control
Pre-Test	X	X
Treatment	X	
Post-Test	X	X
Reflective Journals	X	X
MALL Motivation Questionnaire	X	

3.2 Setting and Participants

This study was conducted at an English Language Preparatory School of a Private School in İstanbul, Turkey. The programme was founded in 1997 and holds 200 students who are mostly native speakers of Turkish language, and a small minority are students from Eastern and African countries. The aim of this programme is to provide students with knowledge of Basic English language skills to cope with their programme in their own undergraduate courses. Students are aimed at gaining at least an upper-intermediate level of English so that they can competently carry on with English skills, reading, listening, speaking and writing required by their departments. On top of this, supporting a technology integrated instruction, the goal is to prepare students for a similar instruction based on technology use. As well as developing students academically, the programme provides opportunities for students to encounter with cultural and social events which enable them to gain certain responsibilities and develop on their personalities. To be specific, the preparatory school has achieved to perform a theatre play including a wide cast of students and comprehensive scenario. Also, movie screening, going to dance clubs, museums, concerts with the students are planned to be organized within a STEAM club within the scope of the head of department. Thanks to

all, preparatory programme has achieved to provide accreditation among European countries with Pearson approved certificate.

The course system in preparatory school is based on developing four language skills along with improving grammar and vocabulary performance of students. Students are taught level course books throughout the whole education year which includes 2 semesters (about 32 weeks). There are 4 levels according to CEFR which are beginners, elementary, pre-intermediate and intermediate. Students start off the semester with the level accordingly to the results of the placement test which take place in the beginning of the education year. Students upgrade to a higher level depends on a finishing course book enabling them to carry on with a higher-level course book until they have finished upper-intermediate level. In this system, there is no passing or repeating a level in the middle of the semester. Therefore, students are required to achieve their midterms and final exams along with certain assignments in order to collect sufficient amount to pass. Throughout the semester, midterm, final exam, 3 quizzes, 3 reader exams, 1 presentation and online assignment, which is completed as extensive study online through the system called CLMS, are applied as assessment. Also, there is attendance score which corresponds to 10 points in total. The students will have the right to complete preparatory school with both of the result of 40% of the whole semester.

The average number of students in each classroom is about 18-24. In the course programme, all levels have a different distribution of course hour. Students who are the subject to this study have 26 hours a week in total of which are distributed as main course with 16 hours, reading and writing course with 10 hours. However, the study is conducted in two different main course classes each of which take 10 hours of main course lesson every week. The medium of instruction is English language in all courses and the methods of teaching used are task based and communicative language teaching. For main course, Open-mind Beginner level and Face 2 Face Elementary level are used as main course books and Cambridge Unlock 1 is used for the reading and writing courses.

For vocabulary teaching, the target vocabulary of each unit in the main course book and unlock skills book is taught by its course instructor. There is no pre-planned schedule or syllabus which shows how to teach or which approach to lead to teach

vocabulary. In other words, the vocabulary items to be taught to each class do not show difference. Yet, the approach of teaching is peculiar to the teacher who gives the course. Overall, vocabulary is taught through context with the integration of listening and reading. Additionally, vocabulary is also practiced through various vocabulary-related interactive activities taken from the activity pages of the teacher's book edition of the course book. Level appropriate vocabulary studied in class is assessed in quizzes, midterms, writings and final exams.

The participants of this study were Elementary level students studying at preparatory programme of a private university in İstanbul, Turkey. The students were placed at this level according to the result of a placement test which took place at the beginning of the semester conducted by the preparatory programme. The students were distributed to their classes homogenously based on their English language level. Preparatory students are all as a consequence of not being able to pass the proficiency exam which was applied by the preparatory school at the end of the term. The participants were aged between and 18 and 23. At this level, students took 26 hours of lesson; 16 of which are spared to main course lessons. The participants of the control and experimental group which were subjected to this study took main course lessons by the researcher. There were 9 girls and 11 boys in the experimental group. In the control group, there were 10 girls and 7 boys.

3.2.1 Demographic information about the participants. To find out the demographic profile of the participants, 7 demographic questions which were in the first part of the motivation questionnaire were asked to be completed by the students in order to get general information about the students. According to the results, none of the participants are married and have children. Almost all the participants are between the ages 18 and 21. All of them are students of a private college in Turkey, and study in the English Preparatory Programme. Only 3 out of 20 students work in a part-time job as a waiter, shop assistant and accountant. None of the students travel for business. 6 students stay at the dormitory of the private university which is next to the university building. The other students commute to come to classes. The following graph shows the findings of part 1.

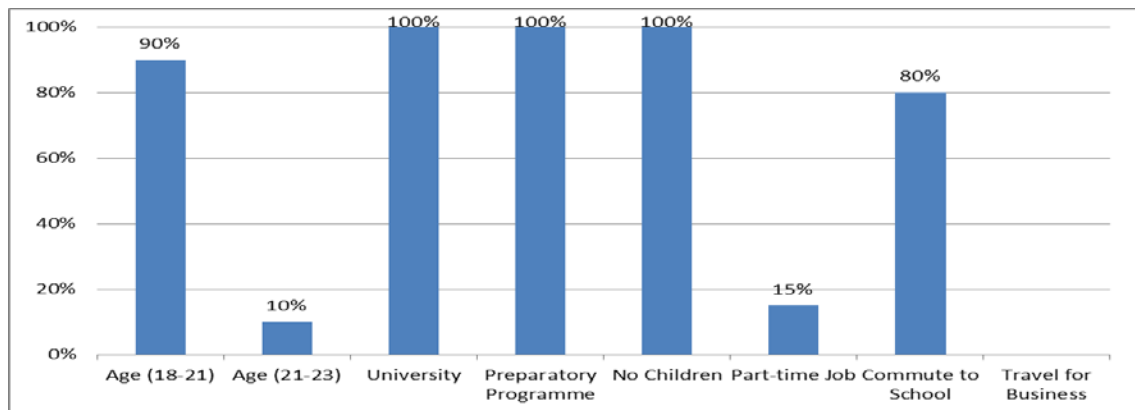


Figure 7. Demographics of the students in the experimental group

3.2.2 Findings about the use of mobile device. The second part of the questionnaire consisted of 10 questions which aim at finding out about students' use of their mobile devices. The findings are provided with pie charts and graphs. Results show that all the students own a smart phone and 4-6 students use a digital camera and tablet besides smart phone. Usefulness play an important role when buying a mobile device for the 75% of the students. In relation to this, half of all have used their smart phones for 3 years. Almost all the students (90%) use their phones comfortably. 60% of the students cannot live without their smart phone and 70% of them use their phones and spend time on the internet for more than 3 hours in a day. 17 students reported that they use their mobile device for portability reasons, and 13 students prefer it for the “anytime, anywhere” feature, and 11 students use it because they want to keep up with technology. According to the questionnaire findings, the online activities done by almost all the students are checking course contact information and calender ($N=19$, $N=18$), and reading about course content ($N=15$). The least favoured online activities among the others are accessing library database and account. Majority of the students use their phones for texting, making phone calls, sending and taking pictures, playing games and watching videos. Despite these, only a few ($N=9$) read articles on their phones. The following pie charts and graphs show the findings of part 2.

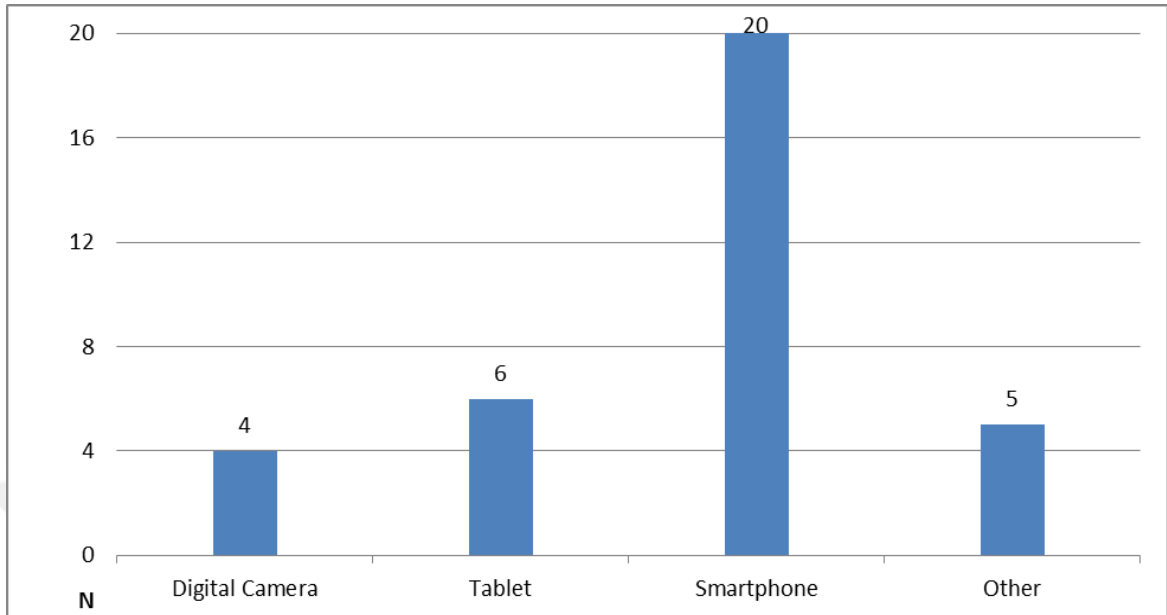


Figure 8. Use of mobile devices

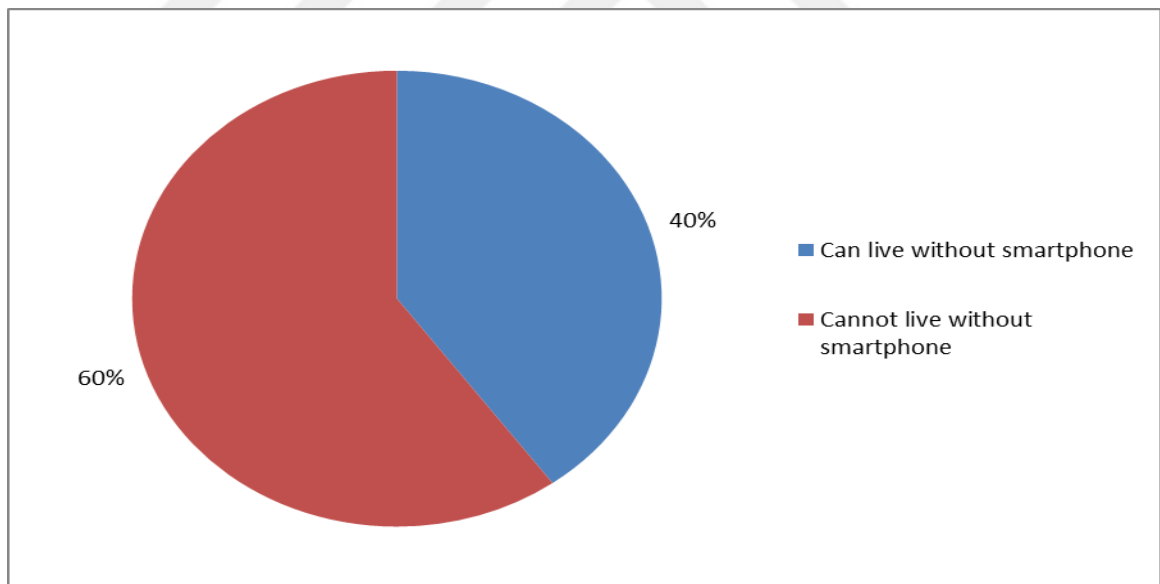


Figure 9. Pie chart of smartphone use

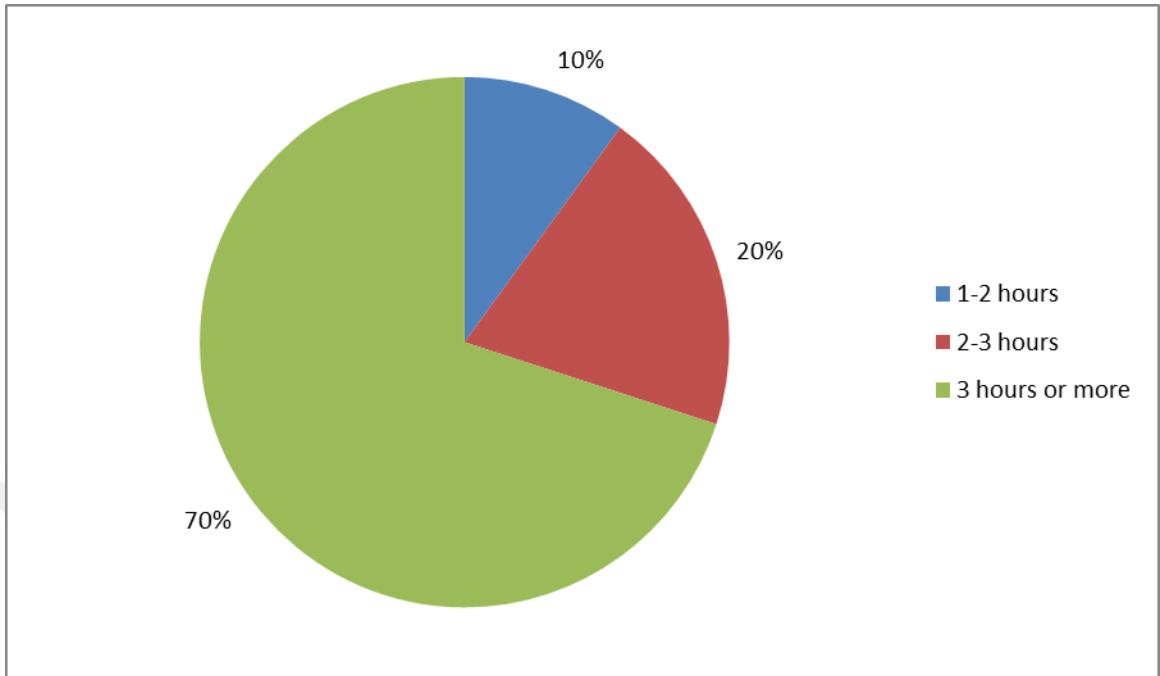


Figure 10. Daily use of smart phone

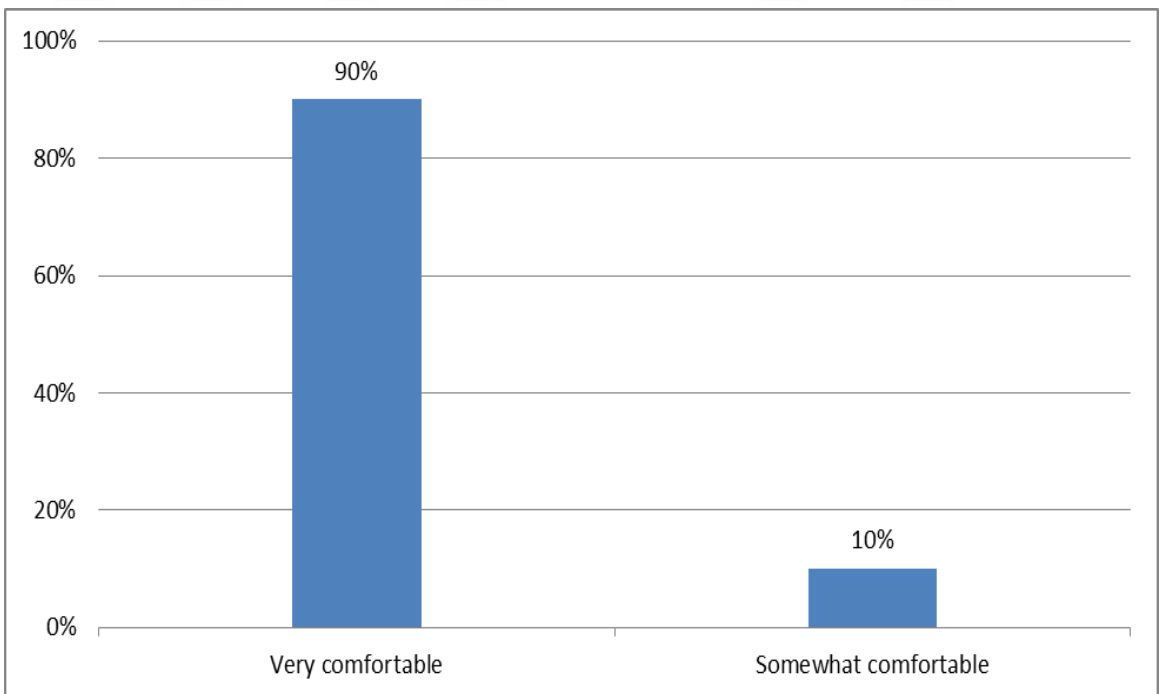


Figure 11. Feeling comfortable towards use of mobile devices

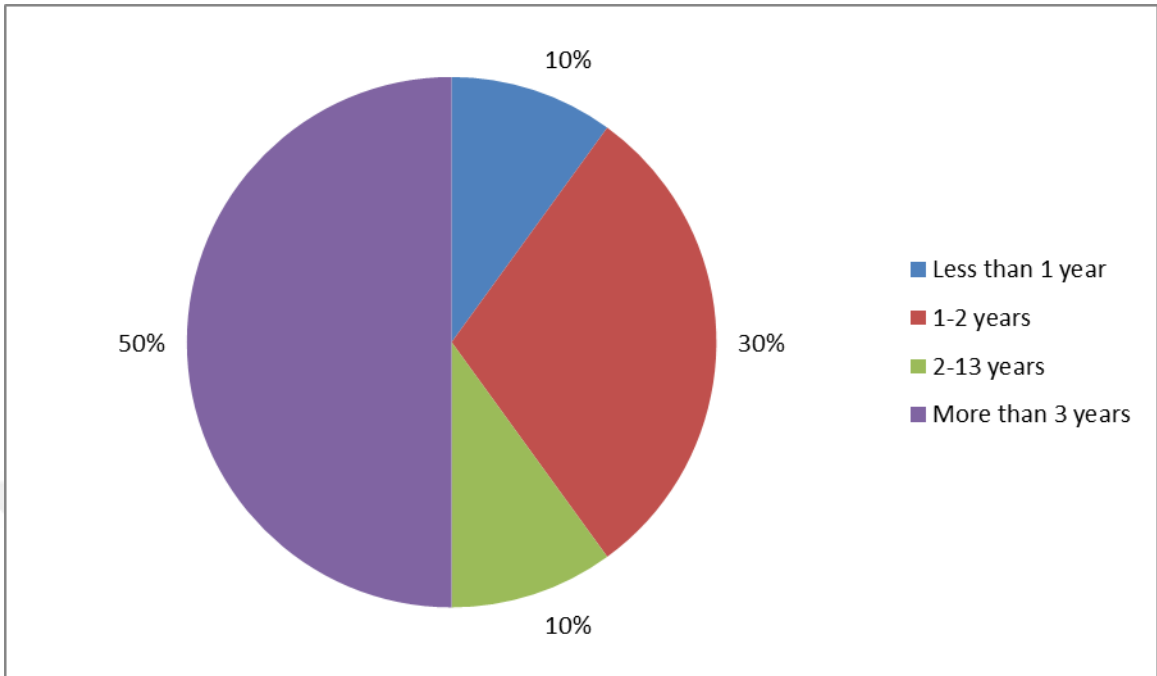


Figure 12. Years in the use of smart phone

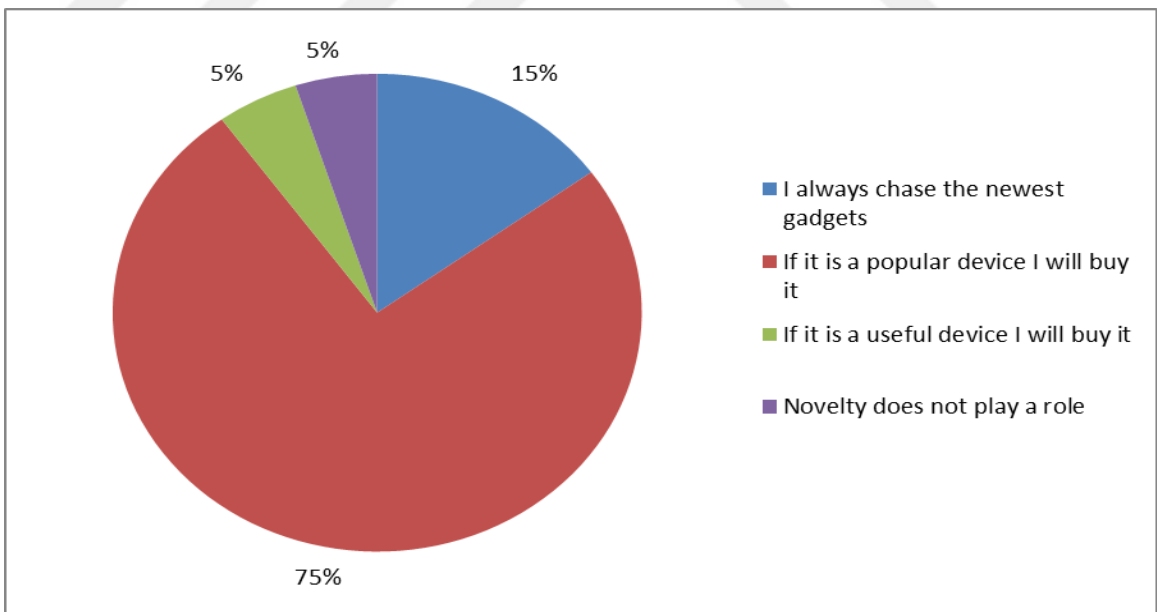


Figure 13. Novelty in mobile device use

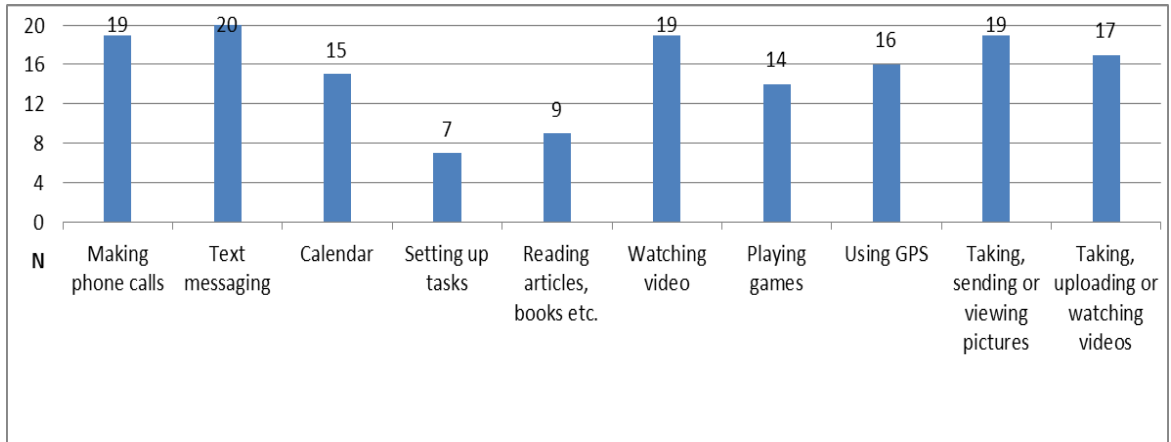


Figure 14. Activities on smart phone use

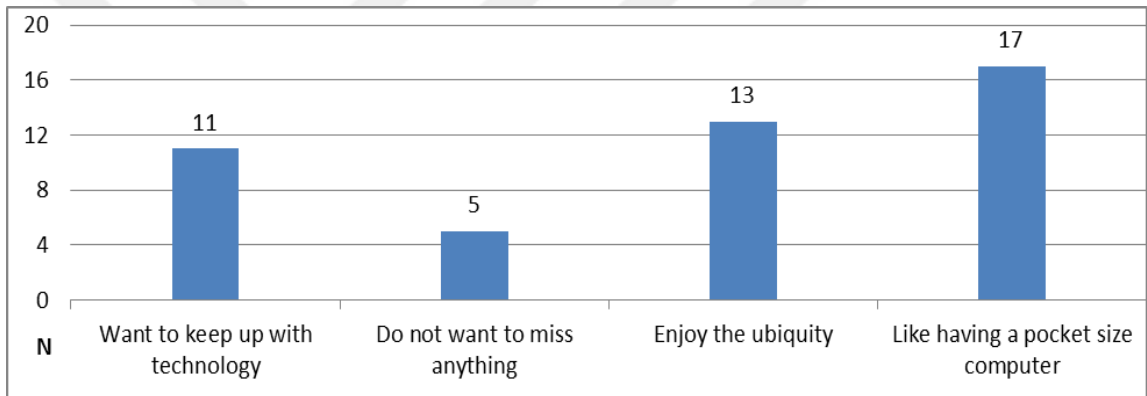


Figure 15. Reason for using mobile device

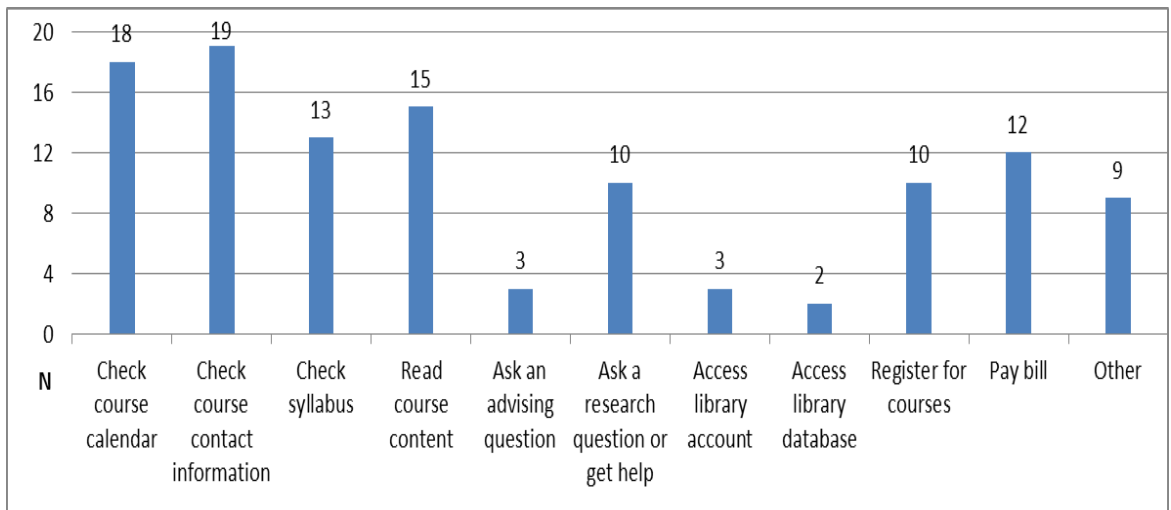


Figure 16. Activities done online via mobile device

3.3 Procedures

In this section of the study, source of data, data collection instruments, implementation and limitations are provided in detail.

3.3.1 Source of data. As data collection techniques, mainly vocabulary test and motivation questionnaire were used to collect statistical data for analysis of change in vocabulary development and motivation level. Also, teacher and student journals were used to gather qualitative data. The analysis of these data instruments was carried out statistically and descriptively for the purpose of increasing the validity and reliability of the study.

3.3.1.1 Types of sampling. Selecting random population and including the presence of every element of general population in the study is almost not possible. At the same time, it would difficult to conduct a study with control and experimental group of which are composed an assigned population (Ary et.al, 2010, p. 155). Therefore, along with nonrandom approaches, non-probability sampling and convenience sampling was adopted for this quasi-experimental study.

3.3.2. Data collection instruments. In this study, data was gathered through both quantitative and qualitative data collection tools in an attempt to investigate the effectiveness of Quizizz as a mobile application and the change in motivation level of the students. Quantitative part included a pre and post-test for a vocabulary test and a motivation questionnaire. The qualitative tool which is a journal for teacher and students of both groups was conducted. The following part provides detail information of each tool.

3.3.2.1 Pre- and post- test. In this study, a fill in the blank vocabulary test consisting of 70 items was applied as a pre- and post-test to examine the students' vocabulary gains before and after the implementation of Quizizz as MALL application. The test was prepared manually by the researcher and with the help of the site,

<https://www.wordsmyth.net/> which creates online vocabulary test. The test included 3 sections; the first and second sections each involve 20, the third section involves 30 questions. The first section involved 20 fill-in the blank sentences with 22 vocabulary items given in the box to be chosen from. In the second section, there were 20 definition-matching questions with 20 vocabulary items given above to be chosen from. Lastly, the third section included 30 sentence-completion questions with multiple-choice answers (see Appendix A). The questions of the test as well as the target vocabulary were designed in accordance with the proficiency level of the participants. Specifically, the vocabulary items were chosen randomly, yet considering the most used A2 level vocabulary provided in lesson course books and Cambridge dictionary. The questions of the test were checked by the testing unit of the institution in order to increase the validity and reliability of the results of the study.

After the pre-test, experimental group studied the target vocabulary in the test with the implementation of Quizizz, whereas control group revised the same vocabulary through the same methods as before the test. To be more specific, in the experimental group, vocabulary was given implicitly and explicitly through reading texts from the course book, fill-in the blank activities, listening activities and interactive board games from the course book. After target vocabulary was given, students played the Quizizz game for practice. On the other hand, the control group received the target vocabulary through the same activities, yet did not receive Quizizz game for practice. After 7 weeks of implementation, the same test was given as a post-test to the same participants, experimental and control group. As the last step, analyses of the scores of the pre and post-test were used to examine whether Quizizz as MALL was affective to develop vocabulary.

3.3.2.2 The MALL motivation questionnaire. MALL motivation questionnaire was applied in an attempt to observe the effectiveness of implementation of MALL on the motivation level of the students. Therefore, the motivation questionnaire was given to the experimental group as pre and post-questionnaire, before and after the MALL application, Quizizz. The questionnaire consists of 3 parts; demographic questions, mobile device questions and motivation questions which make a total of 25 items. In

part 1, there are 7 items in order to get personal information about the participants. The participants were asked about their age, university, grade, whether they worked and had children. Part 2 includes 10 items in an attempt to find out participants' background knowledge about usage of mobile device. Students were asked which mobile device they owned, how much time they spend on their mobile devices daily, what for they use their devices and what roles play when buying a mobile device. Lastly, part 3 consists of 8 questions which aim at finding out the change in participants' motivation level due to implementation of Quizizz through the use of a mobile device in class. Specifically, the items of part 1 and 2 are two, three and four optioned to choose one from all. In addition, there are some items which require multiple selections from all the options. In part 3, all of the 10 items were based on a 3-point Likert style scale ranging from agree "1" to disagree "3" (see Appendix B). The questionnaire was developed by and adopted from the study conducted by Mockus (2011) which aimed to examine the impact of using mobile device on students' motivation in distance education.

Some adaptations to the questions were made in the questionnaire so that the questions serve the purpose of the study. Firstly, the language of the questionnaire was changed to Turkish for the reason that students understand, feel more confident and secure to answer the questionnaire in their native language. Besides, having participants answer the questionnaire in their native language aimed at providing reliability of the results. Secondly, some of the terms used in the original questionnaire were changed in accordance with the Preparatory Programme common terms so that students do not have problems understanding. For example, the term "CATS" which was used commonly by the Programme and students was changed for course announcement website. In addition to this, the term, "course schedule" was omitted as there was no lesson schedule uploaded to any system of the Preparatory Programme, instead mobile application "Quizizz" was added to the list. Regarding the items about demographic information, "I am a Private University Student" and "I am a Preparatory School student" was added as one of the choices in the items 2 and 3. In the second part, two items from part 3 were moved to part 2 because they were more related about the mobile device use of students rather than their motivation. These two items asked about why mobile devices are used for and what kind of activities are done online. Finally, in part 3, two open-ended

questions were omitted from the questionnaire as these items were not assumed to make a change in the results. Also, all the questions were re-written in affirmative sentence form with first singular person, I. In relation to this, the options of all items were changed in accordance with 3-point Likert scale ranging from agree “1 agree” to disagree “3 disagree”.

3.3.2.3 Reflective journal. A reflective essay illustrates what a person thinks on a certain subject or some experience, including reactions, feelings, thoughts and general understanding and analysis of an issue, in a personal way (Dewey, 1993). In this study, another qualitative data, the students and instructors kept reflective journals on the purpose of gathering more in-depth data of the instructor’s and students’ perceptions about Quizizz to teach and practice vocabulary. Reflective journals were kept by each student in experimental (see Appendix C) and control group (see Appendix D), and the instructor of the two groups who is also the researcher of the study. In the reflective journal, students from the experimental group wrote down their experiences, feelings and thoughts regarding the use of Quizizz when learning vocabulary while the instructor took field notes about her observation of students’ learning process with Quizizz after each course. On the other hand, students in the control group and the teacher wrote down learning experiences, feelings and thoughts about the current vocabulary learning process. The following table shows the overview of the procedure during fulfilling the research questions of this study.

Table 6

Overview of Research Questions and the Procedures Followed

Research Questions	Data Collection Procedures	Data Analysis
1. Is there any statistical difference between the vocabulary gain scores of the control (traditional) and experimental (Quizizz) groups?	Vocabulary Pre and Post-Test	Descriptive Statistics

2. Is there any difference between the motivation level of the experimental group before and after the implementation of Quizizz?	MALL Motivation Questionnaire	Non-parametric Mann Whitney U test
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Table 6 (cont.d)

Research Questions	Data Collection Procedures	Data Analysis
3. What are the perceptions of students and their instructor about using Quizizz as a mobile tool to learn and practice vocabulary?	Reflective Journals	Content Analysis & Thematic Analysis
4. What are the perceptions of students and their instructor about the traditional way to learn and practice vocabulary?		

3.3.3 Implementation. This study aimed at finding out whether there is significant change in the vocabulary development and motivation of the students with the use of Quizizz as MALL. Also, the perceptions of the students and their instructor about the mobile application were investigated. For this aim, a quasi-experimental research design was adopted. While Quizizz as mobile application tool was implemented for the vocabulary learning and teaching in the experimental group, no treatment was given to the control group.

This study was conducted at the Preparatory School of a private University in İstanbul, Turkey, and it was carried on with the permission of the Head of Department of Preparatory School. Data collection instruments of the study included a quantitative tool which is a pre- and post-test for vocabulary to examine the vocabulary improvement of the students who used Quizizz as the implementation.

The vocabulary test involved 70 fill-in the blank questions prepared by the instructor who is also the researcher of the study and were revised by the testing unit of the Preparatory School. Following this stage, data collection procedure of pre- and post-test was carried out with total of 37 students at elementary level in the first term of 2018-2019 academic years.

Firstly, pre-test was applied to the participants in the two groups, experimental and control group, on the same day. 60 minutes was allocated for the test which included 70 questions. The day after, Quizizz was implemented to the experimental group whereas no treatment was given to the control group and continued on with traditional learning.

On the first day of the implementation of Quizizz, the students were informed that Quizizz was to be used at the last day of the week in class for the purpose of practicing vocabulary. Also, students were informed of the mobile application tool and how they were supposed to log in. The implementation continued from the first week until week 8. Each week, 10 vocabulary items were chosen from the randomly selected 70 vocabulary items and introduced to the students. Specifically, in the first four days of each week, 10 words were given in class and on the last day of the week, the vocabulary items were practiced through Quizizz in the last 25-30 minutes of the lesson. At the same time, for the purpose of complementing quantitative study, students kept reflective journals each week regarding their thoughts and experiences about the implementation of Quizizz. At the end of 7 weeks, post-test was applied to both experimental and control group in an attempt to find out the differences in the development of vocabulary between the two groups. Meanwhile, in order to measure whether there is a change in the motivation level of the students due to MALL, students in the experimental group were given the motivation questionnaire to the experimental group before and after the implementation of MALL application. The following table provides information of overall study of experimental group in a chronological order:

Table 7

Overall Study of the Experimental Group in a Chronological Order

Activity	Date
70 target words were randomly chosen from the official wordlist.	7.04.2018

Vocabulary Tests were developed and proofread	8.04.2018
MALL motivation questionnaire was found from related literature	13.04.2018
Adaptions were made to questionnaire, translated into native language and piloted	14.04.2018
Permission was taken from the Head of the School of Languages to gather data	17.09.2018
Vocabulary pre-tests to both groups	24.09.2018

Table 7. (cont.d)

Activity	Date
MALL Motivation pre-questionnaire	25.09.2018
The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz	28.09.2018
WEEK 1 Vocabulary Teaching	01-04.10.2018
Introducing the mobile application “Quizizz” and playing quiz game Reflective journals collected	5.10.2018
WEEK 2 Vocabulary Teaching	08-11.10.2018
Introducing the mobile application “Quizizz” and playing quiz game. Reflective journals collected.	12.10.2018
The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz	
WEEK 3 Vocabulary Teaching	15-18.10.2018
Introducing the mobile application “Quizizz” and playing quiz game. Reflective journals collected.	19.10.2018

Introducing the mobile application “Quizizz” and playing quiz game. Reflective journals collected.	12.10.2018
The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz	
WEEK 3 Vocabulary Teaching	15-18.10.2018
Introducing the mobile application “Quizizz” and playing quiz game. Reflective journals collected.	19.10.2018

Table 7. (cont.d)

Activity	Date
The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz	19.10.2018
WEEK 4 Vocabulary Teaching	22-25.10.2018
Introducing the mobile application “Quizizz” and playing quiz game. Reflective journals collected.	26.10.2018
The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz	
WEEK 5 Vocabulary Teaching	29.10-01.11.2018
Introducing the mobile application “Quizizz” and playing quiz game. Reflective journals collected.	2.11.2018
The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz	

3.3.3.1 Instruction in the experimental group vs. control group. For the implementation of Quizizz, experimental group was used whereas the control group received no treatment, therefore the instruction types and methods used in the two groups showed changes. The two groups were introduced to the target vocabulary items in the main course which had 10 hours of lesson every week. Every week, 10 selected target vocabulary items were taught through a context within the related unit of the

coursebook of Main Course lesson, Face 2 Face Elementary. The vocabulary was given implicitly and explicitly. Specifically, definitions and example sentences were given. Other times, vocabulary was seen in listening texts and reading texts. Finally, the students completed the vocabulary exercises in the students' course book and extra activities from teacher's book. The first 4 days of the week was spared for the instruction of the target words and last day for the implementation of Quizizz for which 25-30 minutes of the last lesson were allocated. The feedback of the questions in Quizizz was given once all the students were finished with the quiz game. Before the presentation of the Quizizz game, the teacher had prepared 20-25 vocabulary questions regarding the target vocabulary of the week. The questions were prepared by online test maker (<https://www.wordsmyth.net>) and by the instructor. This online site creates multiple choice and definition matching question types and example sentence with the words selected by the user. So, with the help of this site and Cambridge online dictionary and the teacher, Quizizz included multiple choice, definition-matching, fill-in the gap and picture-defining question types.

On the other hand, students in the control group were taught the same target vocabulary and same amount of vocabulary items by the same teacher/researcher. Also, the instruction used in the control group was same as in the experimental group. To explain, each week 10 vocabulary items were selected from the 70-item vocabulary list. 10 vocabulary items were selected in accordance that they were semi-related to the units to be taught throughout the week. Through the whole week, the 10 items were taught through implicit and explicit methods. For vocabulary teaching, reading texts and listening tracks, example sentences and direct definition giving was used. Also, extra materials from the teacher's book edition of the course book which is Face 2 Face Elementary level. The materials included matching and fill-in the blank exercises to build vocabulary. The vocabulary teaching process continued on for 7 weeks.

To sum up, students in the control and experimental group received the same vocabulary teaching process, same target vocabulary and amount by the same teacher within the same time period. However, the only difference was the implementation of mobile application tool, Quizizz at the last day of each week only in the experimental group to practice the target vocabulary in an attempt to observe the difference in the

vocabulary development of the two groups. The following table provides information of 7-week instruction process in the control group in a chronological order:

Table 8.

Overall Study of the Control Group in a Chronological Order

Activity	Date
70 target words were randomly chosen from the official wordlist.	07.04.2018
Vocabulary Tests were developed and proofread	08.04.2018

Table 8. (cont.d)

Activity	Date
Permission was taken from the Head of the School of Languages to gather data	17.09.2018
Vocabulary pre-tests to both groups	24.09.2018
MALL Motivation pre-questionnaire	25.09.2018
The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz	28.09.2018
WEEK 1 Vocabulary Teaching	01-04.10.2018
Vocabulary teaching through unit content of the coursebook	01-04.10.2018
Reflective journals collected	05.10.2018
The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz	
WEEK 2 Vocabulary Teaching	
Vocabulary teaching through unit content of the coursebook	8.11.2018
Reflective journals collected	
The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz	12.10.2018

WEEK 3 Vocabulary Teaching

Vocabulary teaching through unit content of the coursebook 15-18.10.2018

Reflective journals collected

The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz 19.10.2018

WEEK 4 Vocabulary Teaching

Table 8 (cont.d)

Activity	Date
Vocabulary teaching through unit content of the coursebook	22-25.10.2018
Reflective journals collected	
The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz	26.10.2018

WEEK 5 Vocabulary Teaching

Vocabulary teaching through unit content of the coursebook 29.10-01.11.2018

Reflective journals collected

The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz 02.11.2018

WEEK 6 Vocabulary Teaching

Vocabulary teaching through unit content of the coursebook 05-08.11.2018

Reflective journals collected

The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz 09.11.2018

WEEK 7 Vocabulary Teaching	
Vocabulary teaching through unit content of the coursebook	12-15.11.2018
Reflective journals collected	
The instructor chooses 10 words from the word list and prepares 20 questions on Quizizz	16.11.2018
Traditional vocabulary teaching	05.10-16.11.2018
Post-tests to both groups	19.11.2018

3.3.3.2 Data analysis procedures. For this study, both quantitative and qualitative data was gathered and analysed. Pre- and post- vocabulary test was conducted for quantitative. Independent sample T-test was calculated with the help of SPSS, Statistical Package for the Social Sciences, version 22, for the analysis of quantitative data. With this test, the mean scores of each group's vocabulary achievement were calculated. Thus, whether the implementation of Quizizz caused a significant gap between the two groups regarding their vocabulary development was determined.

The second research question which was to find out whether the use of mobile device causes a change in students' motivation was analysed with a MALL motivation questionnaire. Before the process, the MALL motivation questionnaire was piloted to another group of students in order to enable reliability of the items in the questionnaire. Cronbach's alpha score was found to be .71 which is accepted as a sufficient reliability score.

The motivation questionnaire was applied to students before and after the implementation of Quizizz as pre- and post-questionnaire. To specify, the 8 items included 3-point Likert scale. Therefore, the analysis was conducted manually by the researcher using Mann Whitney U test. First of all, the total number of agree, somewhat agree and disagree were calculated of each item in the pre-questionnaire. Then, the same calculations were done for each of the items in the post-questionnaire. Also, the results

of each item in the pre and post-questionnaire were converted to percentages and demonstrated in a table. The results were compared and interpreted by the researcher.

In order to fulfil the aim of third research question of this study which was to find out the perceptions of the students about using Quizizz to learn and practice vocabulary, reflective journals as qualitative data were analysed through content analysis (Miles & Huberman, 1994). Reflective journals were applied to both groups for 7 weeks. Analysis of reflective journals included the students and the instructor of the two groups. Therefore, through content analysis, major themes and then minor themes were determined both in the students' and instructor's data. Then, the themes were supported with relevant quotes of teacher and students. This procedure was done for both groups separately. Once coding was completed, the two groups' data were compared and interpreted by the researcher. The categories and themes were subject to the checking of inter-raters. To identify the degree of inter-rater reliability, two experts in the field of English Language Teaching (ELT) identified themes from the codes. It emerged that the raters achieved 84. agreement on the general themes apart from the different verbalizations of similar concepts.

3.4 Limitations

Although the study has reached its goals, there are some limitations which should be noted. Firstly, the total number of the participants (N=37) was not sufficient enough to come to a definite conclusion about how effective the mobile application, Quizizz is to improve and practice vocabulary of EFL students studying at preparatory school of a private university. In relation to this, as the participants were all from the context and were all elementary level, the findings of the study could not be generalized to a larger and different context and population. In addition to this, because of the time constraints of the curriculum, the study was carried on in a short period of time which was 8 weeks. The participants after 8 weeks would upgrade to pre-intermediate level, so it was crucial that study was completed within this duration. Another limitation is that despite the fact that students were exposed to and practiced target vocabulary selected by the teacher/ researcher only within the implementation period, students might have revised the target

vocabulary outside the classroom which could lead to distortion of the results of the post- vocabulary test. In short, a study conducted with a larger group of participants from various settings would have served more reliable results. Therefore, the obtained results should be taken as suggestive and descriptive which will serve basis for further research studies.



Chapter 4

Findings

4.1 Overview

This chapter presents the results of this study which aimed to investigate the effects of MALL via mobile application tool, Quizizz, on the vocabulary development and motivation of students studying English at preparatory program offered by a foundation (non-profit, private) university in Turkey. The study also attempted to find out the perceptions of participating students and their instructor about learning, teaching and practicing English using the mobile tool, Quizizz. First, overall differences between the test scores of the two groups were calculated with the help of SPSS statistical package version 22. Then, the replies to the motivation questionnaire which aimed to examine the change of motivation level after the implementation of Quizizz was analyzed. Lastly, for in depth investigation of the perceptions of the students and the instructor about the use of mobile application tool, reflective journals of the students in

the control and experimental group and their instructor were analyzed. The following part of this presents the findings of each research question of this study.

4.2 Findings about the Differences Regarding the Vocabulary Development of the Students after the Implementation of the Mobile Application Ouizzz and Traditional Vocabulary Teaching for Turkish EFL Learners

For the analysis of data; descriptive statistics are presented with mean, standard deviation values. Independent sample t-test was used to examine whether there was a change in the mean results of the two groups which were experimental and control. P values less than 0.05 were considered statistically significant ($\alpha = 0.05$). For the data analysis, SPSS 22.0 package program was used. The results of the comparison of the pre- and post-tests of the two groups amongst and between are provided in detail.

4.2.1 Findings about the differences of pre-test scores between the two groups. In order to find out the how the implementation was effective on the vocabulary gain of the two groups and compare the results, the relationship between the pre-test scores of the two groups was crucial and part of the first research question of this study in terms of determining the vocabulary level each group started with. Therefore, below, the difference of the pre- test scores of the two groups can be observed with a table and figure.

Table 9

Comparison of the Pre-Test Scores of the Two Groups

Test	Groups	n	Average	s.s	p
Pre-Test	Experimental	20	26.70	15.46	0.33
Results	Control	17	31.00	10.10	

In the study, it was determined that the pre-test results of the experimental and control group students were not statistically different ($p = 0.33, p > 0.05$). It was seen that the

pre-test ($X = 26.70$) control group scores of the experimental group students ($X = 31.00$) were not at different levels.

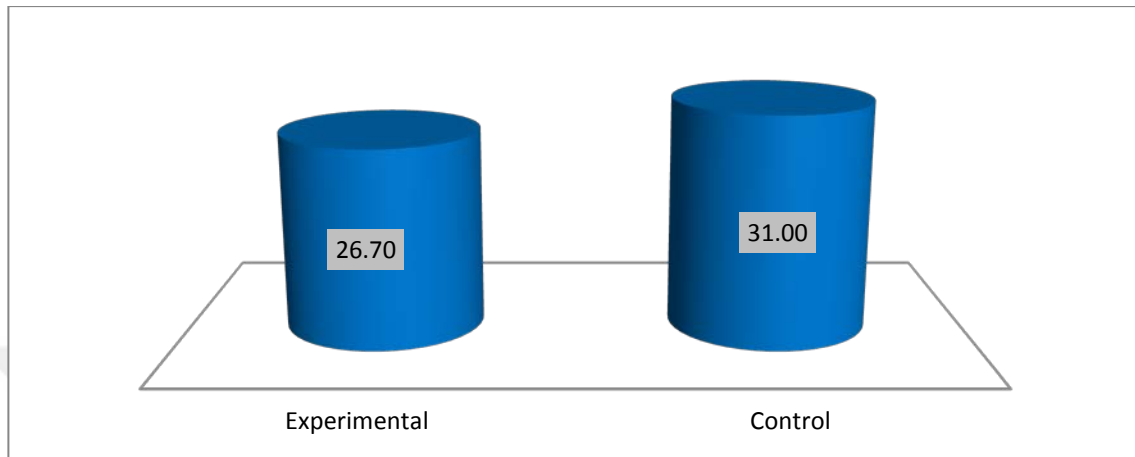


Figure 17. Comparison of pre-test scores of the two groups

4.2.2 Findings about the differences of the post-test scores between the two groups. As part of the first research question, the same test was given to the two groups in order to reveal how effective the implementation was on the vocabulary score gains. Therefore, the statistical data about the post- test scores between the two groups are provided below.

Table 10

Comparison of Post- Test Scores of the Two Groups

Test	Groups	n	Average	s.s	p
Post-Test Results	Experimental	20	46.40	12.92	0.07
	Control	17	38.71	12.28	

In the study, the final test results of the experimental and control group students were not statistically different ($p = 0.07, p > 0.05$). It was observed that the last group ($X = 46.60$) control group scores ($X = 38.70$) of the experimental group students were not at different levels.

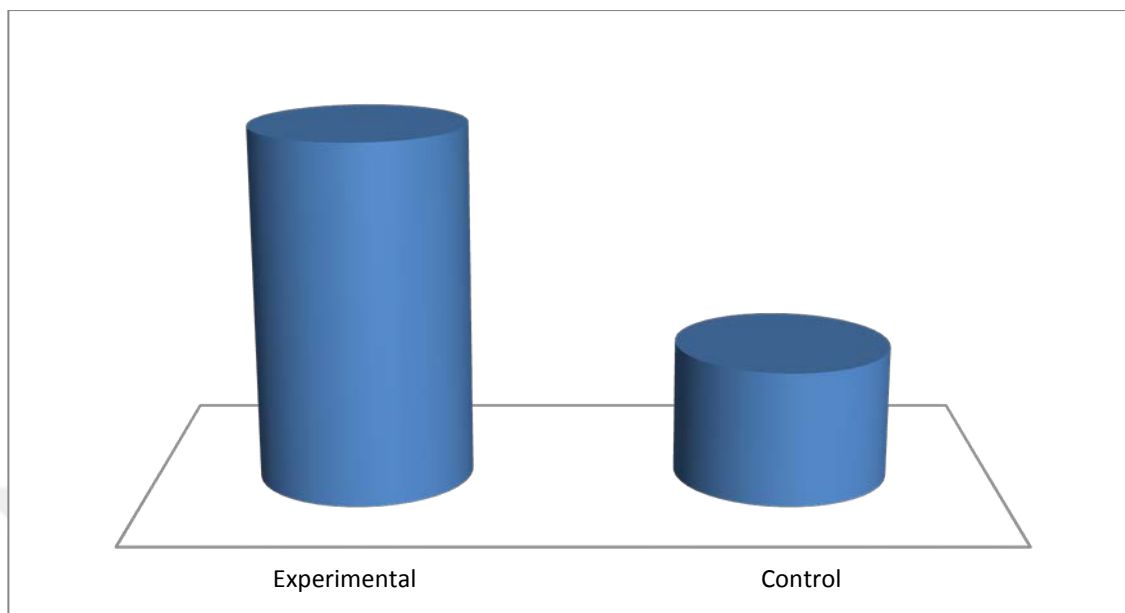


Figure 18. Comparison of post-test scores of the two groups

4.2.3 Findings about the differences of pre- and post-test scores of the experimental group. The aim was to find out whether the use of Quizizz was effective to learn and practice vocabulary. For this purpose, a pre- and post- test was conducted before and after the implementation. In the table and figure below, the statistics related to the test scores of pre- and post-tests are presented below.

Table 11

Comparison of the Results of Pre- and Post-Test of the Experimental Group

Groups	Group	N	X	s.s.	p
Experimental	Pre-Test Results	20	26.70	15.46	0.01*
	Post-Test Results	20	46.40	12.92	

**p<0.05*

As shown in table 9, the pre-test and post-test results of the experimental group students were found to be statistically different ($p = 0.01$, $p < 0.05$). The difference was

found to be due to the higher scores of the post-test ($X = 46.40$) scores of the experimental group students compared to the pre-test scores ($X = 26.70$).

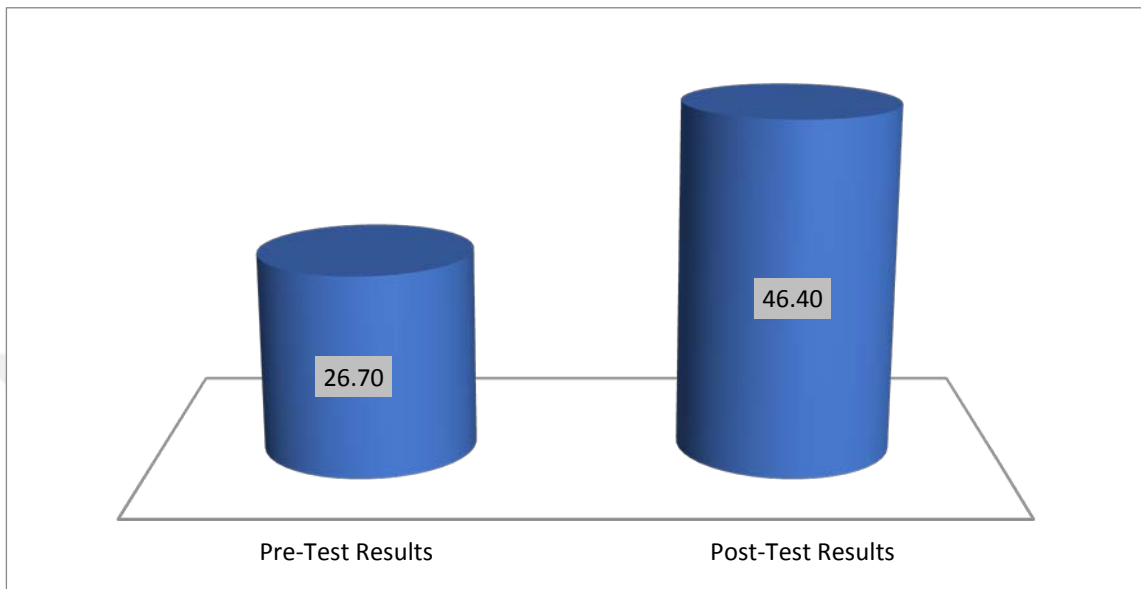


Figure 19. Comparison of the pre- and post-test of the experimental group

4.2.4 Findings about the differences of pre- and post-test scores of the control group. As part of one of the research questions, it was attempted to investigate how effective the traditional way of teaching is to learn and practice vocabulary. In order to measure this, students were given a pre- and post- test before and after 7 week of teaching. Therefore, the table and figure below shows the related statistics.

Table 12

Comparison of the Results of Pre- and Post-Test of the Control Group

Groups	Group	n	X	s.s.	P
Control	Pre-Test Results	17	31.00	10.10	0.04*
	Post-Test Results	17	38.71	12.28	

* $p < 0.05$

In the study, it was determined that the pre-test and post-test results of the control group students were statistically different ($p = 0.04$, $p < 0.05$). It was seen that the post-

test ($X = 38.70$) scores of the control group students were higher than the pre-test scores ($X = 31.00$).

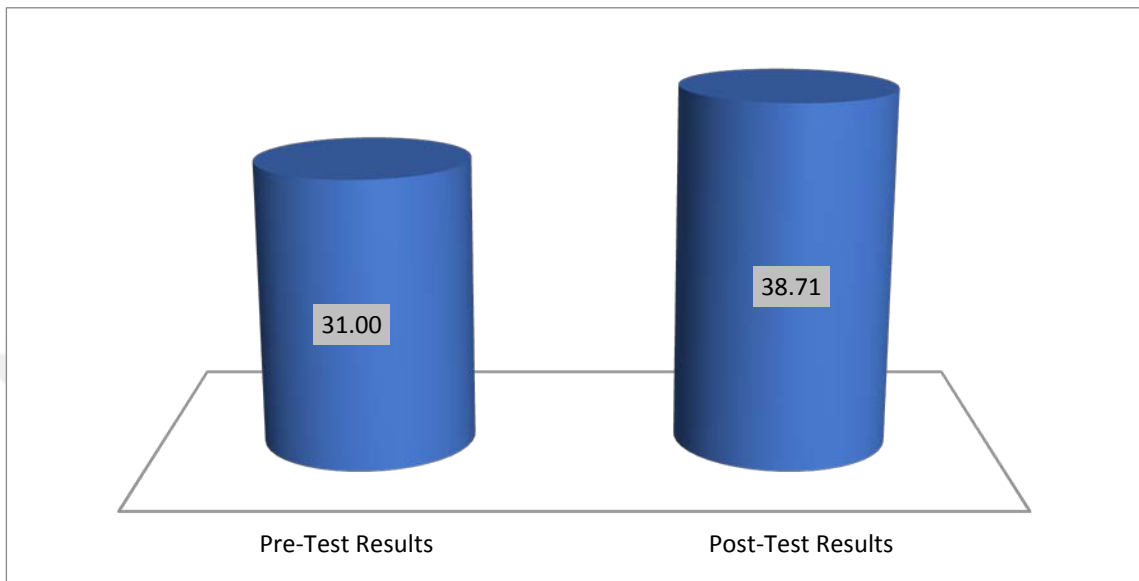


Figure 20. Comparison of pre- and post-test of the control group

4.2.5 Findings about the differences of the gain scores of the two groups. In order to investigate about the first research question which is to find out whether there is a statistical difference in the vocabulary scores of the two groups, the gain scores of the two groups were calculated. The following table and figure demonstrates the related statistics.

Table 13

Comparison of the Gain Scores of the Two Groups

Groups	Group	n	X	s.s	p
Post-Pre Score(Δ)	Experimental	20	19.70	16.05	0.02*
	Control	17	7.71	14.57	

** $p < 0.05$ **Difference (Δ) = Post-Pre-Test*

The results of the changes in the pre-test and post-test scores of the control and experimental group students were found to be statistically different ($p = 0.02, p < 0.05$).

The difference was found to be lower than the scores of the control group ($X = 7.71$) compared to the experimental group ($X = 19.70$).

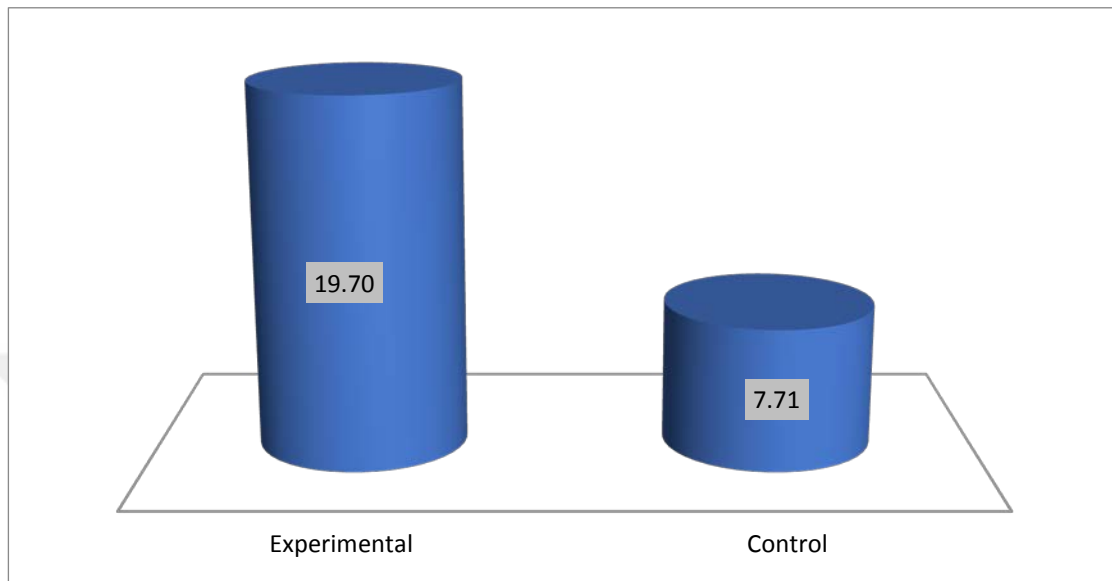


Figure 21. Comparison of the gain scores of the two groups

4.3. Findings Regarding the Students' Motivation Before and After the Implementation of MALL Application

This section provides findings related to the change in students' motivation level after using Quizizz through mobile device in the classroom. The findings were collected via MALL motivation questionnaire which was applied to the students as pre- and post-questionnaire. The following table shows the results of the pre- and post-questionnaire.

Table 14

The Comparison of the Results of the MALL Motivation Pre- and Post-Questionnaire in Frequencies and Percentages

	Pre-Test		Post-Test	
	n	%	n	%
I find the course material delivered on my mobile device engaging.				
Agree	2	10	12	60

Somewhat Agree	7	35	6	30
Disagree	11	55	2	10
<hr/>				
I prefer mobile content over traditional online content.				
Agree	1	5	8	40
Somewhat Agree	15	75	11	55
Disagree	4	20	1	5
<hr/>				
I feel that having access to course material delivered on my mobile device has enabled me to learn the material better than the same content presented in traditional online formats.				
Agree	4	20	15	75
Somewhat Agree	7	35	5	25
Disagree	9	45	0	0

Table 14 (cont.d)

	Pre-Test		Post-Test	
	n	%	n	%
<hr/>				
Now that I have experienced mobile learning in my course, I would like to seek future courses with integrated mobile learning.				
Agree	3	15	13	65
Somewhat Agree	6	30	5	25
Disagree	11	55	2	10
<hr/>				
Receiving feedback is as important as getting a passing grade.				
Agree	5	25	12	60
Somewhat Agree	6	30	7	35
Disagree	9	45	1	5
<hr/>				
If I had more content delivered on my mobile device, I would be more motivated to learn.				
Agree	5	25	10	50

Somewhat Agree	13	65	9	45
Disagree	2	10	1	5

I find learning on my mobile device enjoyable.

Agree	4	20	15	75
Somewhat Agree	15	75	5	25
Disagree	1	5	0	0

I plan to continue using my mobile device for receiving educational content.

Agree	8	40	16	80
Somewhat Agree	12	60	4	20
Disagree	0	0	0	0

To start with, the findings in the Table 12 show that 60% (n=12) of the students found Quizizz to be engaging, and more than that percentage (65%) would like to learn other courses with integration of mobile devices. Also, there was a crucial increase in the percentage of students (75%) who find learning on mobile device useful and enjoyable. The majority of the students with a percentage of 80, plan to continue to use mobile device for learning. 75% agree that mobile device enabled better learning than traditional learning.

However, an interesting result is that only 40% of the students preferred mobile learning instead of traditional methods. In other words, an important group of students which is 55% (n=11) preferred a blended learning with both mobile devices and traditional learning.

Another interesting result was about how feedback became important to students with the use of mobile device. There is a significant decrease in the number of students (5%) who think only getting a passing grade from the course after the implementation of Quizizz. In other words, a good deal of students, which is 60%, realized the importance of receiving feedback from the content as well as getting a good grade.

To sum up, the results of the MALL motivation pre- and post-questionnaire demonstrated that the implementation of Quizizz via mobile device use had positively affected majority of the participants' motivation in learning. Yet, there were still a few students that prefer traditional learning methods over mobile device use.

4.4. Findings about the Perceptions of Students and their Instructor of the Different Instruction to Learn, Practice and Teach Vocabulary between the Two Groups

To investigate the third and last research questions of this study which is, the perceptions of the students and their instructor about the different instruction type between the two groups (experimental and control group), reflective journals were kept.

4.4.1 The perceptions of students and their instructor of the MALL application tool, Quizizz to learn and practice target vocabulary. In the experimental

group, MALL application tool, Quizizz was given as an implementation for 7 weeks. After each implementation, the students and their instructor kept journals about the perceptions of the instruction of vocabulary for 10-15 minutes. In this section of the study, the findings of the reflective journals of the students and their instructor are described.

The findings of the reflective journals of students and the instructor were analyzed under 6 main categories which are motivational effect, permanence of vocabulary, habit change in learning, relaxing effect of MALL application, negative opinions and suggestions for MALL application tool.

The findings of the reflective journal revealed that out of the other categories, motivational effect of the MALL application, Quizizz was found to be the mostly commented factor by the students and instructor. In the Quizizz application game, each student needed to enter the same game pin for the game in order to solve 20 questions which enabled every student to sign in to the game with his/her own ID. The same questions appeared on the screens of mobile devices of each student, and as the student succeeded in the questions, his/her name upgraded on the ranking list which was projected on the classroom white board. Therefore, the game provided a competitive, interactive and at the same time an enjoyable classroom atmosphere. The following excerpts below support this finding:

[...] Every time I play the game, I get ambitious and this makes it very enjoyable (S4, Journal Data, 26.10.2018).

[...] The more I upgrade in the ranking, the more I become ambitious to win and I cannot wait to see that day! (S17, Journal Data, 09.11.2018)

[...] They become so excited the moment I tell them that it is time to play the game (T, Journal Data, 05.10.2018).

[...] One of my students asked if we could play one more game after we have played the first (T, Journal Data, 09.11.2018).

The findings indicated that the use of the application tool was helpful to teach, learn and practice target vocabulary items. Only after the first two Quizizz games were the questions related to real life and include pictures and visuals. So, it was observed

from both students' and the instructor's reflective journal that with the help of different question types which include visuals, current information from life and personification, vocabulary becomes more attractive and learning is permanent. The following excerpts below support this finding:

[...] Every time there are unknown words in the game, but you learn as you see them often (S21, Journal Data, 09.11.2018).

[...] I did not know the word 'synonym' first and I made a lot of mistakes because of it, but now I learned it and will never forget! (S8, Journal Data, 19.10.2018).

[...] I asked some target vocabulary from last week and they remembered what it is (T, Journal Data, 09.11.2018).

[...] One of my students who is actually one of the weakest, said he had only one mistake in the game (T, Journal Data, 02.11.2018).

Furthermore, in the journals, students and the instructor reflected that Quizizz helped change students' studying habits. At the end of the last class of the week, one quiz game was played with the students. After each quiz game, each question was solved again with the instructor and given feedback and this feedback part of the procedure was not given importance by the students at the beginning. However, by checking the correct answers of each question in the quiz game one by one, students developed a habit from Quizizz. More specifically, it was reported in the teacher reflection that in the beginning of the implementation, students were not volunteered in getting feedback and going over their answers. However, soon, the students were observed to gain a habit of doing so. The following excerpts below support this finding:

[...] As you make mistakes in the game, you want to learn where you have done wrong and then play again to do better in the game (S13, Journal Data, 09.11.2018).

[...] The next game becomes easier when we revise our answers every time (S20, Journal Data, 13.10.2018).

[...] This time, almost all of the students listened quietly to the mistakes they have done after I had told them last week that getting feedback was at least as important as coming first in the game (T, Journal Data, 26.10.2018).

[...] When I was giving feedback, one of my students asked further questions about their answers and the questions (T, Journal Data, 09.11.2018).

In the findings gathered from the reflective journals of students and the instructor, it can be observed that MALL application tool showed effects which coincide with the humanistic approach in learning. In other words, Quizizz enabled a relax environment in which they feel themselves comfortable when learning vocabulary. Most of the time, the students were exhausted from the whole week's stress, so when it was time for Quizizz which was played at the last lesson of the week, the students became relieved. In parallel with this, the quiz game created a relaxed learning environment in which students felt free to display feelings and behaviors comfortably. This effect of the application brought out positive comments from the students and the instructor. The following excerpts below support this finding:

[...] I am so happy that we are doing this activity because the lesson flies away quickly without the stress of the lesson (S11, Journal Data, 02.11.2018).

[...] This game definitely helps me live up to the end of a hard day (S6, Journal Data, 26.10.2018).

[...] The moment I told them it is time for Quizizz, they cheered and took a deep breath as they were all tired (T, Journal Data, 02.11.2018).

[...] Their mood changed when they were playing the game because the whole 3 lessons the class was silent and not attentive (T, Journal Data, 12.10.2018).

As for the weaknesses of the application tool, Quizizz, students pointed out some thoughts of which some can be considered similar and different to those of the instructor. In Quizizz, there is an option for the instructor to make adaptations and changes to the time limit allocated to solve each question. The instructor allocated 20 seconds of time limit for each question. Majority of the students complained about the short time limit given to the questions. The fact that the stronger students do not allow the winning chance to the weaker ones due to the time limit was also commented as a weakness as it affected students' motivation negatively. Moreover, the instructor as well as the students was not contended about the long and difficult structured sentences in the questions as it

caused demotivation and stop playing the game. The following excerpts below support this finding:

[...] I mixed up everything because I rushed it (S15, Journal Data, 19.10.2018).

[...] The sentences are too long and difficult to understand (S5, Journal Data, 09.11.2018).

[...] I get demotivated because of my wrong answers and my low ranking among the class (S9, Journal Data, 09.11.2018).

[...] In the second Quizizz game that we played that day, there were long questions. I observed that most of the students clicked on an answer without even reading the questions (T, Journal Data, 09.11.2018).

[...] This time some of the students did not participate in the quiz game because it was the last lesson of the week and were too tired to play (T, Journal Data, 09.11.2018).

For the suggestions for the application tool, Quizizz, the reflective journals revealed that both the students and the instructor agreed on having questions with pictures is more purposeful as it does not require students to put extra effort into understanding the long sentences. Also, the time limit of some questions can be extended exclusively as it is one of the weaknesses of the application game. As a third conclusion, in terms of more practice, the application game can be played more often because Quizizz was played only once for 25-30 minutes of the lesson, and it was clearly not enough for practice and repetition of new vocabulary. The following excerpts below support this finding:

[...] I think all the questions should be picture based so that it will be easier (S1, Journal Data, 09.11.2018).

[...] The time limit is too short; it needs to be extended (S8, Journal Data, 26.10.2018).

[...] We should play it more often! (S15, Journal Data, 19.10.2018).

[...] Most of the students click on a random option before they have the chance to read and understand the question. The time limit can be adjusted to some questions (T, Journal Data, 19.10.2018).

[...] The level of the questions should be lowered to their level, or picture questions should be used more often as most of them got demotivated and quit the game in the middle (T, Journal Data, 05.10.2018).

4.4.2 The perceptions of students and their instructor of the traditional way of instruction to learn and practice target vocabulary. In the control group, a traditional vocabulary teaching was applied. At the end of each week, the students and their instructor kept journals for 10-15 minutes about the perceptions of the traditional way of instruction of vocabulary. In this section of the study, the results of the students' and their instructor's reflective journal in the control group will be explained.

The findings of the reflective journals in the control group were analyzed under 3 main categories which are non-motivational effect, non-permanence of vocabulary learning and suggestions for vocabulary instruction.

It was observed from the reflective journals that traditional way of learning and teaching did not motivate students to learn vocabulary. The students were unwilling to participate in learning and practicing vocabulary. Also, they were bored of listing vocabulary with their definitions, and soon lost interest in doing so. The following excerpts below support this finding:

[...] I try to learn words by playing games; it is more fun and entertaining (S3, Journal Data, 26.10.2018).

[...] I usually get bored in class so I think I learn better when playing games because it is not boring like class (S12, Journal Data, 26.10.2018).

[...] I have to memorize a lot of words every day, it is very boring! (S4, Journal Data, 19.10.2018).

[...] when I was teaching the words with listing and writing the definitions, even I was about to sleep (T, Journal Data, 19.10.2018).

[...] The class was so silent today when I was listing the words on the board, and there was almost no one to participate, which was upsetting (T, Journal Data, 02.11.2018).

Based on the findings of the reflective journals, students and the instructor emphasized that the traditional ways in learning vocabulary was not efficient in terms of the permanence of vocabulary gain. The students stated that the methods they use outside the classroom to learn and practice vocabulary was not enough and worried them most of the time. In the reflective journals, it was highlighted several times by the instructor that students were not good at remembering the previous day's vocabulary the next day. In other words, the students' vocabulary learning was not practiced enough with the traditional way of learning. The following excerpts below support this finding:

[...] I find it difficult to practice words most of the time, and I keep forgetting them the next day (S11, Journal Data, 26.10.2018).

[...] I cannot memorize until I write an example sentence for each, which takes too much time (S7, Journal Data, 19.10.2018).

[...] With games, the words become permanent (S17, Journal Data, 12.10.2018).

[...] The words that I come across in daily life or from pictures, for example the elevator, stay permanent (S8, Journal Data, 02.11.2018).

[...] when I asked the class about the previous week's vocabulary, no one remembered but a few (T, Journal Data, 12.10.2018).

[...] Because I cannot practice the learnt vocabulary, they are not aware of the importance, so I feel like it all goes into the air (T, Journal Data, 02.11.2018).

According to the entries, the students and the instructor pointed out some of the suggestions for the way of learning and practicing vocabulary in class. While the instructor compared the vocabulary instruction in the experimental and control group to lay out the suggestions, the students stated and gave some examples of the different methods that they had to use in order to learn and practice their vocabulary outside the class. The following excerpts below support this finding:

[...] I watch English movies and try to note down some of the words that I remember. It is better for me (S5, Journal Data, 02.11.2018).

[...] Recently, I downloaded an English word application called 'WordBit', which made it helpful to learn (S14, Journal Data, 12.10.2018).

[...] I write down to a notebook of the words that I have taken note of on my course book, otherwise it flies away (S16, Journal Data, 09.11.2018).

[...] This class is usually so silent, so it would be better if I could play interactive games (T, Journal Data, 05.10.2018).

[...] If I could play Quizizz right now, I would also get the students who are on their phone all throughout the lesson! (T, Journal Data, 02.11.2018)



Chapter 5

Discussion and Conclusions

5.1 Discussion of Findings for Research Questions

The purpose of this study was to investigate the effect of the implementation of MALL application tool, Quizizz, on the vocabulary development and motivation of Turkish EFL learners. Additionally, this study aimed at finding out the perceptions of the students' and their instructor about the use of the MALL application, Quizizz, and traditional ways to teach, learn and practice vocabulary. For this study, the data was collected with qualitative and quantitative data instruments which include a vocabulary test as pre- and post-test, a MALL motivation questionnaire as pre- and post-questionnaire and reflective journals. The discussion of the findings of each research question will be provided in depth.

5.1.1 Discussion of the findings of RQ 1: Is there any statistical difference between the vocabulary gain scores of the control (traditional) and experimental (Quizizz) groups? The purpose of the first research question was to investigate the effect of mobile application tool, Quizizz on the vocabulary development of Turkish EFL elementary level learners studying at the preparatory program in a private university in Turkey. The findings showed that the gap between the gain scores of the experimental and control group was very significant. To put it in a different way, students learned and practiced vocabulary better via the use of MALL application which was Quizizz in the experimental group rather than with the traditional ways of instruction in the control group.

The first reason why the use of application tool, Quizizz had better results might be because of the fact that the online application draws a line between incidental and intentional learning. With implicit teaching method of vocabulary, Quizizz fosters vocabulary learning to occur smoothly and in a natural way. That is, vocabulary is learnt and practiced through sentence completion, fill-in the gap questions, therefore bits and pieces of language are also integrated with target vocabulary which makes use of

cohesion, coherence and strategic competence of the language. This argument is in line with that of Schmidt (1994, p.20) which has indicated that implicit learning leads to synthesizing of the language in mind which then brings along formation of organized structures and fluent and accurate production of the language. Similarly, Nation (2001) asserts that knowing vocabulary involves being aware of the components of the target vocabulary and knowledge of linguistics which is parts of speech and grammar structure of the context of vocabulary.

Another reason why Quizizz was successful to teach and practice vocabulary might be is that the Quizizz application enabled learners to repeat, recall and practice the target vocabulary regularly. With Quizizz, the previous week's vocabulary was seen along with that week's new target vocabulary, so this gave opportunity to revise the old vocabulary in regular periods and led vocabulary to stay in mind. The assumptions are in accordance with Thornbury (2002) in that he believed that gained knowledge of vocabulary are stored in short term which will fade away in time if not transferred to long term memory in the mind.

In addition to this, the fact that Quizizz enabled learners to use multiple intelligences might be one of the significant reasons which made vocabulary development of the experimental group ahead of the control group. Specifically, Quizizz questions included a great number of visuals integrated with the target vocabulary. Also, the quiz game featured enjoying sounds which bond together harmoniously. Activities which include multiple learner intelligences benefit learners who have different learning styles. In a similar vein, Asgari (2011) suggests learning is processed through establishing different aspects of language which are motivation and needs of learners. Jeong et al., (2010) supports the researcher as specifying the needs of learners as multiple intelligences.

Finally, the last reason why Quizizz had a positive impact on the vocabulary development of the learners can be grouped under 3 main facets of the application tool which are bringing out enjoyment to learning, having it experienced in a comfortable environment, giving an opportunity for thorough feedback; and these features resulting in better participation of the learners which was critical for the improvement. To illustrate more, Quizizz promises for unique sound effects, memes and game-like

characters that attracted the learners' attention towards lesson and were engaged more with target vocabulary. The assumption is in line with Cameron & Pagnattaro (2017) that Quizizz provides peer and teacher interaction which encourages the learner to engage into the lesson content whilst having fun. Kerrigan (2018) adds that via a leader board, the students can follow their ranking go higher as they answer the question correctly. This aspect of Quizizz can create a mild competitive environment that promotes performance improvement. In addition to this, according to Oxford's (1990) taxonomy of learning strategies, under the affective filter, lowering one's anxiety through a relaxed environment is the key to improve learning. Moreover, Warshauer & Meskill (2000)'s cognitive approach of MALL puts forward that the error and trial process in learning are accepted natural as it is the only way for language to be learned and practiced. Relatedly, both while-feedback and post-feedback was given via the Quizizz application. Lastly, as Klopfer et al. (2002), Miangah & Nezarat (2012) and Kukulska- Hulme & Shield (2008) imply that despite the remoteness and individuality of mobile devices, they provide interaction with peers as well as teacher and participation to the lesson.

5.1.2 Discussion of the findings of RQ 2: Is there any difference between the motivation level of the experimental group before and after the implementation of Quizizz? The aim of the second research question was to investigate whether using Quizizz as a mobile application tool to learn and practice vocabulary affects the motivation of the learners. As to collect data, a MALL Motivation Questionnaire was administered to the experimental group before and after the implementation of Quizizz. Overall, the results have revealed that using Quizizz in the classroom has motivated students, and they would like to seek future courses with mobile device learning. Several reasons can be explained with Shroff & Vogel (2009)'s motivation model.

To begin with, the students were motivated because they found the tool enjoyable, interactive and relevant as a supplementary course material. To specify, students had fun and exciting time as they were practicing vocabulary. In addition, the quiz game promoted a mild competition among students which led to peer interaction. In accordance with perceived interest and challenge aspects of the motivation model of the

aforementioned researchers, learner can raise individual interest through person-activity interaction, that is integrating his/her background knowledge with school content (Hidi & Anderson, 1992; Renninger, 2000). Also, when a goal-directed task is given, the desire to use full potential acts as a stimulator and initiates intrinsic motivation of the individual (Csikszentmihalyi, 1988).

Learning via mobile device seems to have raised motivation of the students since a great number of students agree that the application tool was helpful and useful as a supplementary material to learn and practice the content. To illustrate, Quizizz was used only once a week within the class hours especially when the students felt overwhelmed by the routine flow of the course content in order to offer variety to the lesson which is thought to be the reason for the increase in the motivation level. Regarding this, Reeve, Nix, & Hamm (2003) states that when the learner is offered a choice to make decisions for themselves, and this makes them motivated for their own learning and achievement.

However, the results of the questionnaire imply that although students support the use of mobile device in the classroom as part of the course content for better learning, a majority do not prefer mobile device learning over traditional ways of learning. The fact that students favour a blended way of teaching rather than a single one of the either can be because of former belief of the learner. To be specific, due to educational background of most students of whose are based upon Grammar translation method, there is a belief that English can be learnt thoroughly with deductive instruction of the teacher. GTM suggest that English is learnt through translation and memorization of the content through one-way interaction of the teacher which is mentioned in Oxford (1990)'s Taxonomy of Vocabulary Learning Strategies.

As a final factor which accounts for the increase in the motivation level of the students is receiving constant feedback while and post Quizizz. Thanks to the feature of Quizizz, students could learn whether their answer was correct or not soon after they clicked on an option. Also, the after the quiz game, a good amount of time was allocated to the students so that they were given detailed feedback of each question by the instructor. Therefore, getting response to their learning progress and achievements was important for learner motivation. According to Deci & Ryan (1985), extrinsic rewards

can be demotivating in contrast to intrinsic feedback since it supportive for the learner to improve on his/her performance.

To summarize, the obtained findings showed that after the use of Quizizz there was a significant change in the motivation level of most students although there were a few students who were not motivated much because of some aforementioned factors.

5.1.3 Discussion of the findings of RQ 3: What are the perceptions of students and their instructor about using Quizizz to learn and practice vocabulary in the classroom? For the third research question, the reflective journals of the participants in the experimental group and the instructor were collected in order to find out about their perceptions about using the Quizizz as a mobile application tool to teach, learn and practice vocabulary in the classroom. The reflections were analysed through content analysis.

The findings of the clearly demonstrated that students and the instructor had very positive opinions on Quizizz to learn and especially practice vocabulary and many reasons can be put forward for the application's significant effect on students' learning. First of all, the teacher journals reported that Quizizz helps the learnt vocabulary to be permanent. In other words, thanks to Quizizz game, the students had the opportunity to be exposed to the target vocabulary via different question types and structured sentences which enables the vocabulary to be learnt beyond its definition. This aspect of vocabulary knowledge can be explained in the studies of Kieffer & Lesaux (2007) as they draw a line between breadth and depth of vocabulary. They highlight that besides literal meaning, notion of the connotation, other forms of the word and related words is important to achieve depth of vocabulary. The teacher reported in the journal that when the same vocabulary was asked in Quizizz, the learners could answer the vocabulary questions correctly. To put it in another way, the learners got better at remembering the same vocabulary after the previous week's Quizizz game. In line with this, Hunt and Beglar (2005) assert that only by explicitly noticing and recycling vocabulary can vocabulary be transferred to long term memory from short term. Also, most students as well as the instructor reflected on their journal that the application enabled a positive change in the studying habit of the students. That is, as the learners received continuous

feedback on each of the question after every quiz game, they developed an instinctive habit of checking their answers whether it is right or wrong. It was reported in the teacher's journal that most students came to a sense that getting feedback of one's work leads to the real progress. Similarly, in his study, Koehler (2005) drew attention on the more student centred and less teacher centred pedagogy of integrating mobile devices into the lesson which encourages learners to become autonomous in their learning and can be linked to Oxford (1990)'s Metacognitive strategy in his VLS. This finding is also commensurate with the study of Bringula et al. (2017) who postulated that with the use of mobile devices and apps, the learners can be provided with appropriate exercises and be sent feedback which teachers can also rely on for individual progress. Another finding indicated that Quizizz has a humanistic effect on student's learning which is an aforementioned reason for learner vocabulary development. To explain, students commented on their positive thoughts of Quizizz to transform the stressful learning environment into a peaceful and relaxing one. A great deal of student journals and teacher journal supported that a better and secure learning occurred with a relaxed atmosphere. According to Oxford (1990)'s Affective Strategy in VLS, any relaxing aspect which can be deployed in learning including music, meditation, rewarding and motivation results in improvement. Last but not least, Quizizz was reported to be an enjoyable, interactive and motivational application tool which can be attributed to the mobility aspect of the tool. Chen (2013) being in line with socio-constructivism approach, Chen (2013) supports mobile devices for their educational purposes due to their interactivity feature. Also, in his study, Chu (2011) came to a conclusion that thanks to the ubiquity, functionality and portability of mobile devices, learners look forward to using mobile devices in future courses.

On the other hand, despite the great deal of positive opinions on the Quizizz application, there were some negative sides and suggestions to Quizizz. First of all, majority of the students criticized in the first weeks' of Quizizz that they could not manage some difficult structured sentences which were especially asked in the first weeks' of Quizizz game. In other words, despite pre-intermediate target vocabulary, the fact that the students were elementary level in the first 4 weeks caused them to have difficulty answering the questions correctly. Yet, as the students started to develop their

vocabulary knowledge, the gap closed in time. This situation can be explained by Hunt & Beglar (2002)'s assumptions in that good example sentences enable to analyse the vocabulary in its context and requires a significant skill, guessing the meaning of the vocabulary. This skill is believed to be used by higher levels of learners. Lastly, in the journals, the students were given chance to make suggestions on Quizizz application. Majority of the students quoted that Quizizz was a useful tool to help learn and remember vocabulary. Yet, it would be better if it was played more often instead of once a week.

A conclusion can be made based on Thornbury (2002) that constant repetition and drilling within regular intervals plays a significant role in not only learning but also for the permanence of vocabulary in this context of study in which Quizizz stands as a supplementary mobile tool.

5.1.4 Discussion of the findings of RQ 4: What are the perceptions of students and their instructor about using traditional way of instruction to learn and practice vocabulary? The purpose of the last research question was to reveal the opinions and perceptions about the traditional way of vocabulary instruction compared to mobile learning. For data, reflective journals of the students in the control group and the instructor were analysed. According to the journals, students had overall negative perceptions about traditional way of learning conducted in class, in that they have expressed their thoughts about what motivated them to learn vocabulary, which methods they found more useful to practice and their suggestions to support their vocabulary knowledge. First of all, in all the three headings, the most commented factor was playing games and educational vocabulary applications. Most of the students indicated that they were bored most of the times in class. Similarly, the instructor expressed the biggest disadvantage of one-way deductive teaching was that no one was participating to the lesson. Majority of the class preferred to use interactive games and educational vocabulary applications on their mobile devices to learn and make the vocabulary permanent. They also enjoyed playing these games and applications. In relation to this, Oblinger & Oblinger (2005) emphasizes on being a teacher of young generation requires to have knowledge of the needs of this learner group and be equipped with relevant

technological materials to teach. Lei (2009) supports the idea of keeping up with the generation Z by shifting towards technology use in class as they are engaging devices and good techniques to enable student motivation when learning. Another mostly commented factor was that students as well as the instructor were not satisfied with the permanence effect of the traditional teaching in class. For this reason, students sought for different methods, other than listing and memorizing, to adapt for themselves. For example, writing the learnt vocabulary in an example sentence and using the imagery pictures or relating to real life are some useful learning and practicing methods besides using applications and games. In line with this finding, Nation (2001) and Webb (2005) agree that the use of a single method which is based on word listing, matching, memorizing dictionary meaning are not very affective in vocabulary development. Gu & Johnson (1996) state the reason as these techniques are solely based on memorization; however, cloze tests and good sentence formation requires being aware of other aspects of the word. Lastly, based on the findings of the journal, the instructor was not contented with the participation level of the class because of the boring teacher based deductive teaching. She expressed her worry on the issue by this striking quote, "As the class was so silent and teaching was so boring, even I was about to fall asleep". In relation to this, Kukulska- Hulme & Shield (2008) contends that engagement and participation to the lesson are vital for student success which can be easily achieved through recent technology and portable devices. In the socio-cognitive approach put forward by Warschauer & Meskill (2000), Baleghizadeh (2010) clearly emphasizes that peer interaction and communication is an essential part of learning process in that the learner must be given the opportunity to use his /her gained knowledge to put into use and practice.

In conclusion, the findings of the student and instructor reflective journals are corresponding and as a whole, they reveal that the traditional way of teaching and learning and practicing vocabulary is not entirely a sufficient way. The findings clearly support using fun, interactive and more efficient ways of vocabulary learning including technology-based applications and devices which fulfil the needs of the young generation.

5.2 Pedagogical Implications

The present study offers some practical implications for integrating a mobile assisted language learning (MALL) into classrooms for vocabulary teaching, learning and practicing. To begin with, the findings of this study showed that using Quizizz as a mobile tool increased the vocabulary gain scores of the students. Quizizz was also found to enhance the motivation of the learners. In addition, it was found that the perceptions of the students and their instructor gave insights about using Quizizz as a tool to support vocabulary learning and motivation. Learners stressed that Quizizz was a useful tool to learn, practice and have fun at the same time. They also found it effective to make learnt vocabulary permanent with visuals and example sentences. In this way, students could know vocabulary beyond its definition since they can be acquainted with cohesion and coherence discourse strategies. Furthermore, one of the important features of Quizizz is that it ensures an active class environment since it enables mild competition and peer interaction among learners. Therefore, it would be worth integrating Quizizz as a mobile application tool to support learners and teachers to learn/teach vocabulary and also enhancing their motivation.

However, as the findings of the present study imply, it should be noted that students who are used to employing traditional learning or come from a one-way deductive teaching/learning background could resist the mobile learning. For this reason, before implementing such mobile application in EFL classrooms, the study is highly recommended to be piloted and feedback of students taken.

As to how to implement the mobile app efficiently as an instruction, it is crucial to keep in mind that this instructional material should not include too many questions with complex sentence structure which could take precedence over the target vocabulary knowledge. In this regard, the questions in the Quizizz application should be designed in a simple and clear way.

To sum up, the findings of the research are essential for the implementation of a mobile application to learn, teach and practice target vocabulary in EFL classrooms.

5.3 Conclusion

The present study contributes to the literature by investigating the impact of a mobile application tool, Quizizz on vocabulary learning and practice of the Turkish EFL learners and their motivation. Also, the study aimed at finding out the perceptions of the learners' and the instructor. The overall findings revealed that participants who used Quizizz had better vocabulary gain score compared to the participants who did not use mobile application tool. The results also showed that using Quizizz as a mobile application tool to develop vocabulary had a motivational effect on the participants. In addition, the participants had positive opinions about the use of mobile application tool, Quizizz. In contrast, rather negative perceptions were indicated by the participants who were not exposed to the use of the mobile device, Quizizz to learn and practice vocabulary.

In brief, the findings of the current study showed that integrating Quizizz in EFL classrooms to teach, learn and practice vocabulary would have positive effects on the vocabulary development and motivation in language preparatory programs.

5.4 Recommendations for Further Research

This study can offer some recommendations for further research. Firstly, the number of participants used to conduct the study was a small number and all study at elementary level. Therefore, using a larger group of participants studying at different proficiency levels would draw more valid conclusions in a replicate study.

Also, the study was conducted at a private university in İstanbul, Turkey which may not be properly generalized to other contexts. For this reason, the study can be conducted with participants at a state school, at different contexts within or outside İstanbul, Turkey.

In this study, one of the data collection instruments, teacher reflective journal was gathered from a single instructor to investigate his/her perceptions. In future similar studies, if teacher reflective journals were administered to more than one instructor, more valid and reliable findings would be obtained.

In addition, for the treatment group, Quizizz was implemented as a mobile application tool to examine the effect of mobile device use on vocabulary development and motivation of learners. Yet, for future studies, other types of mobile application tools are recommended to be used in order to get different and complementary results of the current study.



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APPENDICES

A. VOCABULARY TEST

Name: _____

PART 1

Complete the fill in the blanks with the words in the box.

Businessman	Memory	Neighbor	Accident
Advice	Backpack	Married	Brave
Zoo	Guidebook	Appointment	

1. She was injured in a car _____.
2. I have a headache, what _____ can you give ?
3. I have a(n) _____ at 3 o'clock with my doctor.
4. My _____ is full of books.
5. She is very _____ because she is not scared of anything.
6. My father is a very successful _____. He has a company.
7. Katy took a tourist _____ to discover Rome.
8. Brian didn't sleep because his _____ had a party last night.
9. Sue has a very good _____, she remembers every details.
10. Jane is _____ and has 3 children.

Keyboard	Luggage	Machine	Jewellery
Competition	Manager	Letter	Information
Library	History	Journalist	

11. The _____ was angry because John was late to work.
12. Computer is a very useful _____.
13. _____ is the best place to study or read a book.
14. His _____ is very heavy, he cannot carry it.
15. She went to the post-office and sent _____.
16. We need a _____ to write something on PC.
17. Ugur Dunder is a Turkish _____.
18. She likes to wear big gold _____.
19. You can get _____ from the Internet.
20. My favorite subject was _____ in high school.

PART 2

Match the words with their explanation

Instructions: Write the correct word in the space before its definition. There may be more than one definition for each word.

- diary - disease - environment - exhibition - expectation
- geography - government - health - improvement

1. _____ * a daily record of a person's experiences and thoughts.
2. _____ * the process of making something better or of getting better

3. _____ * the air, water, and land in or on which people, animals, and plants live
4. _____ * a belief or hope concerning what is possible in the future.
5. _____ * the condition of the body and the degree to which it is free from illness, or the state of being well
6. _____ * the group of people that has power to make laws and important decisions for a community, state or nation.
7. _____ * the study of the earth's surface, climate, land forms, and bodies of water.
8. _____ * a condition that causes harm to a person's health.
9. _____ * a public showing of art, crafts, products, or skills.

- adventure - ambition - behavior - childhood - climate - competition
 - complaint - crime - culture - delay - department

1. _____ * a separate part of a government, school, business, or other large organization.
2. _____ * the period or state of being young and not fully grown.
3. _____ * to put off until a later time.
4. _____ * a trip or activity that is dangerous or exciting.
5. _____ * an act of complaining.
6. _____ * the way a person or thing acts or does something.
7. _____ * the usual weather conditions in a place.
8. _____ * a situation where people compete, such as a contest or game.
9. _____ * the language, ideas, inventions, and art of a particular group of people

10. _____ * a strong desire to reach a goal, or the goal that someone wants to reach.

11. _____ * illegal activity in general.

PART 3

Choose from the words to complete the sentence

Instructions: Choose the best answer for each question.

1. A _____ took all our money.

- A) thief
- B) theater
- C) teenager
- D) wedding

2. There is a movie _____ at the mall.

- A) robbery
- B) theater
- C) surgery
- D) wedding

3. The gang committed a recent bank _____.

- A) staff
- B) wedding
- C) robbery
- D) surgery

4. The patient had _____ on his heart.

- A) teenager
- B) robbery
- C) surgery
- D) survey

5. The _____ is still looking for answers to questions about the earth and outer space.

- A) staff
- B) surgery
- C) wedding
- D) scientist

6. She has changed a lot since she became a _____.

- A) survey
- B) teenager
- C) surgery
- D) robbery

7. They took a _____ of women over forty for their opinions of the new law.

- A) wedding
- B) survey
- C) theater
- D) teenager

8. There is a qualified _____ working in the company.

- A) scientist

- B) staff
- C) survey
- D) robbery

9. My sister's _____ will take place in a church.

- A) thief
- B) teenager
- C) staff
- D) wedding

10. Scientists are doing _____ to find a cure for cancer and other diseases.

- A) population
- B) poetry
- C) relationship
- D) research

11. He studied _____ before becoming a priest.

- A) receipt
- B) promise
- C) religion
- D) protection

12. New York City has a _____ of more than eight million.

- A) promise
- B) population
- C) politicians
- D) protection

13. We lock the doors at night for _____.

- A) population
- B) promise
- C) politicians
- D) protection

14. The management has a good _____ with the workers.

- A) poetry
- B) relationship
- C) population
- D) religion

15. She made him a _____ that she would call.

- A) promise
- B) population
- C) religion
- D) research

16. The cashier at the store gave me my change and a _____.

- A) protection
- B) promise
- C) receipt
- D) population

17. We study _____ in English class.

- A) relationship

- B) religion
- C) poetry
- D) receipt

18. A lot of _____ live in Washington, D.C.

- A) religions
- B) researches
- C) populations
- D) politicians

19. Adults should take _____ for their actions.

- A) illness
- B) responsibility
- C) communication
- D) mistakes

20. I gave my baby some _____ for his cough.

- A) opinion
- B) medicine
- C) occupation
- D) personality

21. One twin has a cheerful _____, while the other is more serious.

- A) imagination
- B) illness
- C) personality
- D) responsibility

22. Teaching is the _____ of most members of her family.

- A) medicine
- B) development
- C) occupation
- D) opinion

23. In that country, they use buses and trains for _____ more than cars.

- A) medicine
- B) transportation
- C) illness
- D) personality

24. That scientist is a person of high _____.

- A) opinion
- B) mistake
- C) intelligence
- D) occupation

25. The president spoke about the latest _____ in the war.

- A) responsibility
- B) communication
- C) intelligence
- D) development

26. The teacher noticed a big _____ on the test.

- A) communication

- B) transportation
- C) occupation
- D) mistake

27. E-mail is a new means of _____.

- A) mistake
- B) responsibility
- C) communication
- D) opinion

28. She uses her _____ to write stories.

- A) personality
- B) illness
- C) imagination
- D) mistake

29. She missed a day of work because of _____.

- A) opinion
- B) responsibility
- C) communication
- D) illness

30. In my _____, everyone should vote in the election.

- A) intelligence
- B) illness
- C) personality
- D) opinion

B. MALL MOTIVATION QUESTIONNAIRE

This questionnaire is designed to gather information about your opinions concerning the mobile device use and motivation. There are three parts in this questionnaire. The first part includes 7 demographic questions, the second part consists of 10 questions about the use of mobile device. Finally, third part includes 8 questions about motivation in using mobile device and application in the lesson. Please give your honest opinion. Your honest opinion is critically important for this study. Your personal information will not be shared by any third-party entities for their commercial, marketing or other purposes.

PART 1

Demographic Questions

1. -How old are you?

- A) 18-21
- B) 22-25
- C) 26-30
- D) 31-40
- E) 41-50
- F) 52-60
- G) 61 or over

2. I am a(n)____student.

- H) State University
- i) Private University
- J) International
- K) Other

3. I am a_____.

- A) Prep. School Student
- B) Freshman
- C) Sophomore
- D) Junior

- E) Senior
- F) Graduate student

4. Do you have school age kids?

- A) Yes
- B) No

5. Do you work?

- A) Yes, I work full time.
- B) Yes, I work part-time
- C) I am self-employed.
- D) I am unemployed.

6. Do you commute (to work, classes, etc.)?

- A) Yes
- B) No

7. Do you travel for business?

- A) Yes
- B) No

PART 2

Mobile Device Questions

1. What mobile devices do you have? Check all that apply.

- A) Smart-phone
- B) Basic-phone
- C) MP3 player
- D) Digital camera
- E) Tablet (iPad, Galaxy, etc.)
- F) E-reader (Kindle, Nook, etc.)
- G) Other

2. If you have a smart-phone can you live without it?
- A) Yes
 - B) No
3. How many hours a day do you use your smart phone?
- A) Less than 1 hour
 - B) 1-2 hours
 - C) 2-3 hours
 - D) 3 hours or more
4. How comfortable are you using your mobile device(s)?
- A) Very comfortable
 - B) Somewhat comfortable
 - C) It is too complicated
5. How long have you used your smart phone?
- A) Less than 1 year
 - B) 1-2 years
 - C) 2-3 years
 - D) More than 3 years
6. What role does novelty play in your mobile device use?
- A) I always chase the newest gadgets
 - B) If it's a popular device I'll buy it
 - C) If it's a useful device I'll buy it
 - D) Novelty does not play a role
7. What do you use your mobile device for? Check all that apply.
- A) Making phone calls
 - B) Text messaging
 - C) Calendar
 - D) Setting up tasks (to-do lists)
 - E) Reading articles, books, articles, online content
 - F) Watching video
 - G) Playing games
 - H) Using GPS
 - I) Taking, sending or viewing pictures

J) Taking, uploading or watching videos

8. If you access the internet on your mobile device, how much time (per day) do you spend online?

- A) Less than 15 minutes
- B) Up to 1 hour
- C) 1-2 hours
- D) More than 2 hours

9. Why do you use your mobile device? Check all that apply.

- A) I want to keep up with technology
- B) I don't want to miss anything while I'm away from my laptop/desktop
- C) I enjoy the anytime, anywhere flexibility in my schedule
- D) I like having a computer that fits in my pocket

10. Which of the following online activities would you be most likely to do on a mobile device? Check all that apply.

- A) Check course calendar/schedule
- B) Check course contact information
- C) Check syllabus
- D) Read course content
- E) Ask an advising question
- F) Ask a research question or get help
- G) Access library account
- H) Access library database
- I) Register for courses
- J) Pay bill
- K) Other

PART 3

Motivation Questions

Did you use any of the following mobile learning activities in this course?

- Mobile course website
- Mobile course announcement (CATS)

- Mobile audio/video files, podcasts (Quizizz)

If you used any of these please complete the following motivation questions.

1. I find the course material delivered on my mobile device to be engaging.
 - A) Agree
 - B) Somewhat agree
 - C) Disagree
2. I prefer mobile content over traditional online content.
 - A) Agree
 - B) Somewhat agree
 - C) Disagree
3. I feel that having access to course material delivered on my mobile device has enabled me to learn the material better than the same content presented in traditional online formats.
 - A) Agree
 - B) Somewhat agree
 - C) Disagree
4. Now that I have experienced mobile learning in my course, I would seek future courses with integrated mobile learning.
 - A) Agree
 - B) Somewhat agree
 - C) Disagree
5. Receiving feedback is as important as getting a passing grade.
 - A) Agree
 - B) Somewhat agree
 - C) Disagree
6. If I had more content delivered on my mobile device, I would be more motivated to learn.
 - A) Agree
 - B) Somewhat agree
 - C) Disagree

7. I find learning on my mobile device enjoyable.

- A) Agree
- B) Somewhat agree
- C) Disagree

8. I plan to continue using my mobile device for receiving educational content.

- A) Agree
- B) Somewhat agree
- C) Disagree



C. STUDENT JOURNAL FOR EXPERIMENTAL GROUP

1-) Write about your experiences and thoughts about Quizizz so far.

2-) Is Quizizz a useful application/tool to learn and practice vocabulary? Reflect on your experiences.

3-) Does Quizizz affect your motivation? How? Reflect on the motivation to learn and practice vocabulary? You can consider these factors (*enjoyable, dull, boring, ordinary, fun, exciting, etc.*)

4-) Do you think Quizizz makes the learnt vocabulary permanent? Reflect on your experiences.

5-) What are the effects of Quizizz on how you study vocabulary? Reflect on your experiences.

6-) What are the weaknesses of Quizizz? What are some suggestions you can give for Quizizz?

D. STUDENT JOURNAL FOR CONTROL GROUP

1-) Write about your experiences and thoughts about the vocabulary learning in the classroom so far.

2-) Are the methods used to learn and practice vocabulary efficient or not? Reflect on your experiences.

3-) How do the methods used to learn and practice vocabulary affect your motivation? Reflect on the motivation to learn and practice vocabulary? You can consider these factors (*enjoyable, dull, boring, ordinary, fun, exciting, etc.*)

4-) Do you think the methods used to learn and practice vocabulary makes the learnt vocabulary permanent? Is the lesson enough to learn and practice vocabulary? Reflect on your experiences.

5-) What are the weaknesses of the methods used in the classroom to learn and practice vocabulary? and what are some suggestions you can give for the classroom teaching?

E. CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name:

Çevikbaş, Gülsüm

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(T.C.)

Date and Place of Birth: 25 January 1993,

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EDUCATION

Degree	Institution	Year of Graduation
MA	Bahcesehir University	2019
BA	Middle East Technical University	2015
High School	Mustafa Kemal Anatolian Teacher Training High School	2011

WORK EXPERIENCE

Year	Place	Enrollment
2017-	İstanbul Kültür University	English Language Instructor
2015-2017	İstanbul Kemerburgaz University	English Language Instructor

FOREIGN LANGUAGES

Advanced English, Elementary German