T.C.
BURSA ULUDAG UNIVERSITY
INSTITUTE OF EDUCATION SCIENCES
FOREIGN LANGUAGES EDUCATION
DEPARTMENT OF ENGLISH LANGUAGE TEACHING

VOCABULARY LEARNING THROUGH COLLOCATIONS AND GAMIFICATION IN EFL CLASSES

MASTER'S THESIS

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EFL SINIFLARINDA EŞDİZİMLER VE OYUNLAŞTIRMA YOLUYLA KELİME ÖĞRENME

Teknoloji kullanımı ve oyunlaştırma araçları son birkaç on yılda yabancı dil olarak İngilizce öğrenen sınıflarda büyük ölçüde kullanılmakta ve bu araçların yaygınlığı uzaktan eğitimin tamamen ya da kısmen yüz yüze eğitiminin yerini aldığı COVID-19 pandemi döneminde büyük ölçüde artmıştır. Quizlet, yabancı dil olarak İngilizce öğrenen sınıflarda kelimeleri daha etkili ve eğlenceli şekilde öğretmek için yaygın olarak kullanılan en popüler uygulamalardan biridir. İkinci dil olarak İngilizce öğrenen öğrenciler arasında Quizlet'in etkinliğini araştırmak için yapılan birçok araştırma olmasına rağmen, Türkiye'de üniversite seviyesinde Quizlet'in kelime öğrenmede ve uzun vadede kelimelerin akılda kalmasında ne kadar etkili olduğunu araştıran çok az çalışma bulunmaktadır. Ayrıca, hem kelime öğrenmede hem de uzun vadede kelimelerin akılda kalmasında Quizlet'te eşdizimlerin kullanılması üzerine yapılan çok az çalışma bulunmaktadır. Bu çalışma üç temel amacı araştırmayı hedeflemektedir. Birinci amaç hem Quizlet'in hem de eşdizimlerin kullanılmasının kelime öğrenme açısından geleneksel yöntemlere göre ne kadar etkili olduğunu araştırmak, ikinci amaç hem Quizlet'in hem de eşdizimlerin kullanılmasının kelimelerin uzun vadede akılda kalması açısından geleneksel yöntemlere göre ne kadar etkili olduğunu araştırmaktır. Son olarak da, bu çalışma kelime öğrenmede Quizlet kullanımı hakkında öğrencilerin bakış açılarını araştırmayı amaçlamaktadır. Bu çalışmada üç hafta boyunca farklı araçlar kullanarak aynı kelimeleri çalışan üç sınıftan oluşan toplam 60 öğrenci yer almıştır. Daha sonra ön test,

son test ve geciktirilmiş son test sonuçları karşılaştırılmış ve ayrıca katılımcıların Quizlet kullanımı hakkındaki görüşlerini öğrenme amacıyla yarı yapılandırılmış mülakat uygulanmıştır. Bu araştırmanın sonuçları sadece Quizlet kullanımının değil aynı zamanda eşdizimlerin kullanılmasının hem kelime öğrenmede hem de kelimelerin akılda kalmasında önemli ölçüde katkı sağladığını göstermektedir. Ayrıca bu araştırma katılımcıların Quizlet'i kelime öğrenmede etkili, pratik ve eğlenceli bir araç olarak gördüklerini bulmuştur.
Anahtar Sözcükler: eşdizimler, kelime öğrenim, oyunlaştırma, Quizlet.

ABSTRACT

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VOCABULARY LEARNING THROUGH COLLOCATIONS AND GAMIFICATION IN EFL CLASSES

The use of technology and gamification tools have been in great use over a few decades in EFL classes, and their popularity has increased considerably during the COVID-19 pandemic period during which online education replaced face to face education completely or partially. Quizlet is one of the most popular applications used in EFL classes to teach vocabulary in a more effective and enjoyable way. Although there have been several studies conducted to seek the effectiveness of Quizlet among students learning English as a second language, there have been only a few studies carried out in Turkey at tertiary level to investigate the effectiveness of Quizlet in terms of vocabulary learning and retention, and also there have been very few studies which investigated the use of collocations on Quizlet both in terms of vocabulary learning and retention. The present study aims to investigate firstly, the effectiveness of Quizlet as well as the effectiveness of using collocations on Quizlet in comparison to traditional methods in terms of vocabulary learning, secondly the effectiveness of Quizlet and the use of collocations compared to traditional methods in terms of vocabulary retention, and finally the perception of the students regarding the use of Quizlet to study new vocabulary. In this study, 60 participants in three different groups studied the same target words over three weeks using different tools. Then, the results of pretest, posttest and delayed posttests of the participants were compared and also a semi-structured interview was conducted to learn about the perception of the participants concerning the use of Quizlet. The results of the study revealed that not only the use of Quizlet, but also the use of collocations

contributed to both vocabulary learning and retention of the students significantly. The study also found that the participants regarded Quizlet as an effective, practical and enjoyable tool to study vocabulary.
Keywords: collocations, gamification, Quizlet, vocabulary learning

To my wonderful family

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Filiz Türkmen

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CHAPTER 1
INTRODUCTION

1.1. Background to the Study

"The limits of my language are the limits of my mind. All I know is what I have words for."

-Ludwig Wittgenstein

1.1.1. The Significance of Vocabulary: Teaching vocabulary in English as a Foreign Language (EFL) context has been of utmost importance not only in practice, at schools but also among the academicians working in the field over the last decades. However, this was not the case before the 1970s either because vocabulary was not considered to be independent of grammar and the other four fundamental language skills, or because it was not thought to be as essential and significant as them in EFL education. With the increasing popularity of communicative approach as well as natural approach in EFL, teaching vocabulary has gained the importance it deserves since these approaches highlight the significance of enhancing receptive vocabulary of learners, particularly at the early phases of language learning (Nunan, 1991).

Additionally, the significance of vocabulary knowledge in teaching English in English as a Second Language (ESL) classes has been emphasized in a great number of works of several scholars working in the field. For instance, Mukoroli (2011) states that vocabulary knowledge plays a central role not only for receptive skills, which are reading and listening, to understand the language, but also for productive skills, which are writing and speaking. That's why improving the vocabulary knowledge of students who are learning a foreign language is in fact a must for language acquisition as it has a direct positive effect on the development of all language skills.

Similarly, Nation (2001) also mentions that there is an interrelated connection between language use and vocabulary knowledge, which means that each of them makes the other easier and better. Likewise, Wilkins (1972) claims that the ability to use grammatical forms may not be that valuable as long as the learner lacks the vocabulary which is in fact essential to convey the message they aim to give. Wilkins (1972) also states that in case of a lack of necessary grammatical items, very little part of the message intended can be conveyed, however in case a learner lacks the target vocabulary, nothing is likely to be conveyed. Therefore, vocabulary needs to be regarded as a major tool for the learners of a second language so that they can communicate successfully without possible frequent pauses and disruptions.

1.1.2. Vocabulary Teaching Techniques: With understanding the importance of teaching and learning vocabulary, a number of different techniques and methods have been suggested including making use of keywords, mnemonic devices, word families and using collocations to teach vocabulary more effectively (Altınok, 2000). Moreover, Nagy (1988) emphasizes the significance of providing not only sufficient definitions of the words, but also sufficient authentic contexts where the words are naturally used to the learners as they are the fundamental conditions for an effective vocabulary teaching.

In addition to that, there are also a variety of other techniques offered to teach vocabulary including physical demonstration of the objects, making use of synonyms or antonyms of the words, visual tools, using dictionaries, explanation of the words verbally, giving examples and teaching the target word in the context (Nash & Snowling, 2006). Furthermore, Woodard (1998) offers some more different strategies which language teachers can use for vocabulary teaching such as focusing on the origins of the words, making structural analyses, trying semantic mapping, dramatization, teaching the students how to make use of dictionaries and learning new words via computer programs.

1.1.3. The Use of Collocations in Vocabulary Teaching: Among the techniques suggested to teach vocabulary, there has been several research underlining the necessity and effectiveness of teaching words in chunks rather than teaching them separately (Willis & Willis, 2013). Lewis (1997) also states that language should not be regarded separately as grammar and vocabulary, but as multi-word formed chunks, stressing the importance of paying attention to collocations while teaching new words. He elaborates that the chunks which may include collocations, some idiomatic expressions, fixed and semi-fixed ones play a critical role in making language production easier and as a result improving fluency considerably. Likewise, Nattinger (1988) states that the idea of using collocations whose potential has not been entirely grasped is of utmost importance in the acquisition of vocabulary.

Additionally, Carter and McCarthy (2014) state that both instructors of English and the students need to be aware of the significance of collocations by taking subsystems of English into consideration such as cultural, lexical and grammatical ones while learning new words. Biskup (1992) also puts forward that collocation related errors make up a high percentage of the errors L2 learners make as students have difficulty in finding the accurate collocations of a word due to the differences between L1 and L2. Thus, the collocations should be paid attention to while teaching vocabulary so that learners can learn and use these words more easily and accurately.

1.1.4. The Use of Technology in Vocabulary Teaching: There have been huge improvements in Information and Communication Technologies (ICTs) and the adoption of such technologies in education over the last decades (Kirkwood & Price, 2014). As a natural result of this, language teaching and learning have also changed substantially in terms of the methods and the tools in use. As for the use of technology in language learning, Computer Assisted Language Learning (CALL) is the first term to be mentioned. CALL was concisely defined by Levy (1997) as "the search for and study of applications of the computer in language teaching and learning" (Levy, 1997, p. 1). On the other hand, Egbert (2005) has a broader definition of CALL as in the following: "CALL means learners learning language in any context with, through, and around computer technologies" (p. 4).

Moreover, with the recent developments in educational technologies and with the increasing popularity and availability of mobile phones, a new concept has appeared in the field which is called Mobile Assisted Language Learning (MALL). MALL includes using mobile devices such as mobile phones, personal digital assistants (PDAs), tablets and smartphones with the aim of language learning (Yaman & Ekmekçi, 2016).

With the widespread use of MALL, students learning a foreign language have the opportunity to study languages more freely and autonomously without being dependent on their teachers, books or class materials. Currently, there have been several studies conducted in order to investigate the role and effect of mobile technologies in teaching and learning languages. (Barrs, 2011; Çakır, 2015; Kétyi, 2013; Mehta, 2012; Rahimi & Miri, 2014; Saran, Seferoglu & Cagiltay, 2009; Yaman & Ekmekçi, 2016).

Azar & Nasiri (2014) also regard MALL as an innovative and enjoyable way to learn a new language. Similarly, MALL is considered as "convenient, practical and easy way of assisting ESL learners in enhancing their ESL learning" (Soleimani, İsmail & Mustaffa, 2014, p. 457). Likewise, Miangah & Nezarat, (2012) regard MALL as a wonderful solution to the limitations faced while learning a foreign language in terms of time and place.

1.1.5. Online Classes with the Pandemic: Although MALL technologies have been used for several years, they have gained more popularity and importance with the increasing tendency and use of online education, in particular over the last two years due to COVID-19 pandemic which transformed the traditional way of education dramatically as it has done so to our lives in many ways. During this pandemic period, MALL technologies, especially with gamification features have been in great use among students and educators. To mention the benefits of gamification briefly, Harismayanti, Putra and Santosa (2020) states that this

innovative technique increases both extrinsic and intrinsic motivation, and as a result ensures personalized learning.

1.1.6. Quizlet: One of the most commonly used gamification tools to learn languages has been Quizlet nowadays. According to the current data on its website and Wikipedia, Quizlet has been quite popular in learning languages with its approximately 500 million study sets in 15 languages and with 60 million users from 130 countries.

Although Quizlet has been in use for only 15 years, there has been considerable research done to show its effectiveness in teaching languages, in particular teaching English as a second language. For instance, Dizon (2016) carried out a study among university students in Japan to investigate whether Quizlet is an effective tool to improve students' vocabulary knowledge and study results indicated a significant difference due to Quizlet use. Also, the study reached a conclusion that students showed considerably positive attitudes to using Quizlet while learning L2 vocabulary (Alhadiah, 2020; Okkan & Aydın, 2020; Prayogi & Wulandari, 2021; Styaningrum et al, 2021; Waluyo & Bucol, 2021).

Additionally, Quizlet has been one of leading tools with which students can learn new vocabulary more effectively in less time in comparison to traditional methods (Avisteva & Halimi, 2021; Chaikovska & Zbaravska, 2020; Ho & Kawaguchi, 2021; Sangtupim & Mongkolhutthi, 2019; Van et al, 2020). That's why Quizlet has been among the most prevalent tools used by English lecturers at tertiary level (Ulla, Perales & Tarrayo, 2020).

1.2. The Statement of the Problem

A great number of studies have indicated that knowing and being able to use a sufficient number of vocabularies have been of utmost importance for EFL students so that they can not only understand what they read and listen, but also communicate efficiently through speaking or writing. However, learning vocabulary is a complicated process. Bölükbaş (2013) states that since teaching and learning a new word is a multi-dimensional process, it takes a longer time for the students to keep the newly learned word in their memory and make the learning permanent. She also emphasizes that remembering only the meaning of a new word does not necessarily mean that the student has fully learned it. Scrivener (1994) also supports this idea by highlighting the fact that just knowing the meaning of a word is obviously not sufficient for the student to be able to use that new word. Furthermore, Nagy and Scott (2000) emphasize how complex word knowledge is by listing five main aspects of this complexity which are given below:

a) "incrementality: knowing a word is a matter of degrees, not all-or nothing",

b) “multidimensionality: word knowledge consists of several qualitatively different types of knowledge”,

c) “polysemy: words often have multiple meanings”,

d) “interrelatedness: one’s knowledge of any given word is not independent of one’s knowledge of other words”,

e) “heterogeneity: what it means to know a word differs substantially depending on the kind of word” (p. 106).

In addition to that, Henriksen (1990, p. 303) states that learning a vocabulary is a dynamic process and he suggests three different dimensions to vocabulary development which are listed below:

a) “the partial-precise knowledge dimension”

b) “the depth of knowledge dimension”

c) “the receptive-productive dimension” (p. 303).

As it is clear with the research above, learning vocabulary is multidimensional and complicated process and the availability of various models can make it more complex for the students, thus, Bölükbaş (2013) emphasizes that it is the duty of the teacher to make learning easier for the students by guiding them in their choice of the most appropriate vocabulary learning strategies which will meet their needs. Hiebert & Kamil (2005) also suggest that the students should be provided with the opportunity of a rich context to learn new words where they can be exposed to the new words in a variety of ways including visuals, texts and an oral production. Despite such a wide variety of models and techniques proposed to teach vocabulary more effectively, Shen (2003) points out significant weaknesses in terms of vocabulary teaching in classrooms including limited use of strategies by teachers, classroom-based constraints, textbook related issues and lack of awareness of the teachers regarding research findings.

In addition to these weaknesses, traditional methods like using notebooks, books and classroom-based teaching have been regarded to be quite boring and too ordinary for our Z generation students who have been born into a huge number of technological tools in education, and who have been taking their classes partially or completely online at least for the last two years due to COVID-19 pandemic restrictions. There have been a number of studies showing that our students from generation Z are different from the students from the earlier generations as they have a shorter attention span (Harmanto, 2013; Prokopchuk & Vinnikova, 2021). Nicholas (2018) also states that the problem of having a shorter attention span may result from being too much exposed to online learning technologies and

smartphones. He also concludes that in contrast to the previous generation who could listen to a long lecture, this generation gets bored with such lectures very quickly.

Similarly, Sugiarti (2019) also supports this idea by stating that this generation prefers more lively and active sessions. Therefore, students nowadays feel more motivated to study English through a variety of technologies including several games and applications on their mobile phones or tablets. Uzun (2016) also emphasizes the necessity of integrating recent innovations and tools in education practices as he underlines the importance of regarding education as a dynamic process that should be updated frequently both to keep up with the recent trends and innovations of the technology and to address the current needs, interests and desires of our students. Similarly, Fageeh (2013) also reaches the conclusion in his study that the integration of technological devices such as smartphones or tablets in vocabulary teaching increases the motivation and interaction of the students.

Moreover, Chinnery (2006) states that MALL tools have been very beneficial for the students, learning languages as these tools offer a considerable amount of flexibility in terms of time and space. In other words, students now have the opportunity to study wherever they want inside or outside of the classroom and whenever they want in accordance with their own pacing and time management.

In addition, as an English lecturer for more than ten years, I have personally observed that many students learning English as a second language at universities often face challenges when they are using the new vocabulary in speaking or writing due to the fact that they lack the necessary information regarding how to use those new words. This problem of collocations students frequently face may stem from their overgeneralization tendency of rules or their inclination to translate collocations from their mother tongue, Turkish into English directly, which generally results in weird, inaccurate and often totally unclear utterances, called “chicken translation”. Gough (1996) also mentions the problem of teaching collocations as a serious challenge and takes a lot of time to teach. He also states that textbooks mostly have testing activities rather than teaching focused ones, and thus they lack a systematic approach to teaching collocations.

1.3. Research Questions

The research questions of the study are as follows:

RQ1: How effective is Quizlet for new vocabulary learning?

- Part A: Is Quizlet more effective than traditional methods for new vocabulary learning?
- Part B: How effective is Quizlet with collocations for new vocabulary learning?

- Part C: Is there a significant difference between learning vocabulary on Quizlet with collocations and with synonyms and with definitions?

RQ2: How effective is Quizlet to help the long-term retention of a new vocabulary item?

- Part A: Is Quizlet more effective compared to traditional methods in terms of vocabulary retention?
- Part B: How effective is Quizlet with collocations in terms of vocabulary retention?
- Part C: Is there a significant difference between using Quizlet with collocations and with synonyms and with definitions regarding vocabulary retention?

RQ3: What are the opinions of the students about Quizlet and vocabulary learning?

1.4. The Purpose of the Study

This study aims to investigate the effectiveness of Quizlet in terms of both learning new vocabulary and the retention of new vocabulary after 4 weeks among EFL students at tertiary level in Turkey. Quizlet has been chosen as a tool because it offers a number of significant advantages both for the teachers and the students. As Ashcroft & Imrie (2014) stated, Quizlet, which offers an advanced version of printed flashcards, allows the learners to enjoy an easy and practical interface through which they can improve their vocabulary. Barr (2016) also emphasized the advantages of using Quizlet to teach vocabulary by stating that:

> "Some of the advantages of Quizlet include the ability to rapidly create flashcards with pictures and audio, the ability to access the application on a computer or smartphone, the ability to automatically rearrange flashcards to avoid serial learning, or memorizing the order, and the ability to interact with the cards using a variety of study and game modes" (Barr, 2016, p.39).

On the other hand, when the studies on the use of Quizlet to teach vocabulary are examined, it is clear that in majority of them, the definitions or synonyms of the target words have been used while preparing vocabulary sets on Quizlet (Baptist, 2018; Barr, 2016; Sanosi, 2018; Setiawan & Wiedarti, 2020). However, the definitions or synonyms of the words mostly do not provide the students with sufficient knowledge regarding how to use the target word. The knowledge of commonly used collocations of the target words would be better for the students to be able to use the new words. That's why in this study, one of the experimental groups will have the opportunity to study the new words with collocations on Quizlet while the other one will study the same words with synonyms and definitions as it is the case in several studies done so far. Therefore, the present study aims to compare the effectiveness of using collocations and that of using synonyms and definitions on Quizlet.

More importantly, this study aims to investigate not only short term but also long-term effects of using Quizlet for the retention of vocabulary as retention of new vocabulary is one of the challenges and significant issues which require more effort and energy for the students. For better retention of vocabulary, students need to be exposed to new vocabulary repeatedly and Quizlet allows the students to do that. This idea of the necessity of repetition for making the acquisition possible has been studied and claimed by several researchers in the field (Nation, 2001; Schmitt, 2008). Samur (2012) also found in his study that using Quizlet increased the retention of vocabulary by making the students exposed to new vocabulary frequently through different kinds of stimulation like visual and auditory ones.

Finally, the present study aims to get some insight into the perception of students regarding Quizlet as well as their learning vocabulary strategies and techniques.

1.5. The Significance of the Study

To be able to address the needs and preferences of our Z generation students, this study will focus on one of the most successful and popular gamification tools to learn vocabulary in EFL classes: Quizlet. When the studies done on teaching vocabulary using Quizlet in Turkey are carefully taken into consideration, it seems that there is not much research done among the students at tertiary level. Additionally, although there have been some studies conducted on Quizlet and its effects on language learning and motivation, the majority of them focused on the use of definitions, synonyms or antonyms to teach new words, therefore there have been only few studies investigating the use of collocations with Quizlet in Turkey.

On the other hand, the majority of the studies implemented on Quizlet measured its efficiency in terms of learning vocabulary just after the experimental process, and only few studies aimed to measure its efficiency with regard to the retention of vocabulary after a certain time period. Therefore, this study aims to contribute to the field in many ways. The present study aims to provide both the researchers and the practitioners in the field with valuable information regarding not only teaching vocabulary via Quizlet but also the use of collocations compared to synonyms or definitions.

Also, thanks to this study, short term and long-term effects of using Quizlet will be investigated, which will result in beneficial data for ESL teachers and researchers. Finally, this study will seek the opinions of the students concerning the use of technology particularly Quizlet and their favourite modes on Quizlet, which will definitely yield practical tips and useful information for ESL teachers who would like to make use of Quizlet in their classes.

1.6. Assumptions

1. 24 words which were selected as target words for the research, and which were chosen from the related units of the course book of the students according to the syllabus are assumed to be appropriate to the proficiency level of the students.
2. All participants taking part in the research were assumed to have similar knowledge of words and proficiency level taking the placement exam they had taken a few weeks before the research started into consideration.
3. All participants from three classes were assumed to take part in the research willingly to improve their vocabulary. However, due to the low rate of attendance resulting from the COVID-19 pandemic conditions, almost half of the participants could participate in the research.
4. The participants were assumed to join the lessons willingly as a part of their preparatory school program.
5. The weekly time for each practice which was 20-30 minutes is assumed to be enough to practice the target 8 words in each session by using the printed vocabulary materials prepared in the control group.
6. 20-30 minutes were assumed to be sufficient to practice the target 8 words in each session by using the exercises on Quizlet for the participants in the experiment group.
7. The introduction session to make the participants familiar with the application is assumed to be sufficient for them.
8. The participants were assumed to participate in the pretest, posttest and the delayed test willingly and to show their real knowledge of the words in these tests.
9. The participants were assumed to take part in the semi-structured interview willingly to share their ideas regarding using Quizlet during the research.

1.7. Limitations of the Study

1. The current study was limited in terms of the level of participants. All participants were at A1 level.
2. The practice period of this research study was limited to three weeks.
3. The number of the participants was limited to 60 owing to low attendance of the students to preparatory classes which resulted from the negative effects of the COVID-19 pandemic conditions on the attendance of the students.

1.8. Definitions

ICT: This abbreviation stands for information and communication technologies, which is defined as a “diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information” Tinio (2003, p.4).

CALL: CALL stands for computer assisted language learning and can be briefly defined by Levy (1997) as “the search for and study of applications of the computer in language teaching and learning” (Levy, 1997, p. 1).

MALL: This abbreviation stands for mobile assisted language learning and includes using mobile devices such as mobile phones, personal digital assistants (PDAs), tablets and smartphones with the aim of language learning (Yaman & Ekmekçi, 2016).

CHAPTER 2
LITERATURE REVIEW

2.1. Vocabulary Teaching

Although teaching vocabulary was not regarded as important as teaching grammar in the past in EFL, it has been of great importance especially after the popularity of the communicative approach in EFL. As Mukoroli (2011) states, teaching vocabulary is necessary for all main skills of the language including reading, listening, writing and speaking. In other words, knowing a sufficient number of words not only allows the learners to understand what they listen or read but also lets them produce the language either in written or spoken ways.

Fisher and Frey (2014) also emphasize the significance of vocabulary for all language skills stating that only with sufficient vocabulary knowledge, the students can understand complicated texts and write more complex texts. They also state that students need enough repetition and practise to be able to learn the new words and use them correctly and this situation makes the teachers responsible for guiding the students to achieve that using various vocabulary learning techniques.

On the other hand, knowing a word does not only mean one thing, but it suggests many different things about the word including its meaning, how to spell it, how to pronounce it, how often it is used in a sentence, from which origin it derives from as well as its various semantic relations like synonyms and antonyms (Nagy & Scott, 2000).

Similarly, knowing a word is a complicated concept as there is no degree like not knowing a word at all or knowing it hundred percent. That's why there have been some ranges regarding the extent of a person's vocabulary knowledge from a little to a lot. Dale (1989, as cited in Taylor, 1990) suggested 5 stages for the extent of a person's knowledge of a word which are given below:

"1. The student has no knowledge about the word.

2. The student has a general sense of the word.

3. The student has a narrow, context-bound knowledge about the word.

4. The student has a basic knowledge of the word and is able to use it in many appropriate situations.

5. The student has a rich, de-contextualized knowledge of the word and can use it in various appropriate situations."

Likewise, McCarthy (1984) also puts forward that there is a clear distinction between having the knowledge of a word and the ability to use it. In other words, knowing a word does

not guarantee an automatic use of the word in certain contexts. This idea was further elaborated by Goulden and Nation (1990) who stated that knowing a word does not mean the ability to use it and distinguishing between reception and production is quite difficult as at what point the receptive vocabulary can turn into productive one is not clear.

Moreover, Henriksen (1990) regards learning vocabulary as a dynamic process, and he comes up with three different dimensions with regard to vocabulary development. These dimensions are given below with a brief explanation.

1. "The partial-precise knowledge dimension": This dimension is related to the familiarity of the students with words and the likelihood of saying its exact meaning (p.303).
2. "The depth of knowledge dimension": This dimension is about the lexical knowledge of the students in terms of the collocations or synonyms of the target words (p.303). Likewise, Stahl (1999) highlights that knowing a word does not mean having the knowledge of its definition, but more than that including the knowledge of its synonyms or the change of the word's meaning when used in different contexts.
3. "The receptive-productive dimension". This dimension emphasizes the necessity of differentiating between the knowledge of a word and being able to use it (p.303).

Similarly, Melka (1997) also underlines the necessity of defining these terms which are reception and production because several international tests including TOEFL mainly focus on receptive and productive vocabulary.

2.2. The Use of Collocations in Vocabulary Teaching

As it has been mentioned above, knowing a word is a complicated process and knowing only the definition of a word is not sufficient to know a word, but it involves having the knowledge of the words which are used together, and the words that are used together most frequently are called collocations (Mukoroli, 2011).

The study of collocations was not as popular as today in the past. However, it gained more popularity with the lexical approach. Lexical approach was first suggested by Michael Lewis and stressed improving the proficiency of learners through lexis, or words and the combination of such words (Lewis, 1993). With this approach, collocations were paid special attention. Lewis (1997) underlined the idea that instead of viewing and presenting words individually, it is better to regard them in collocations.

Moreover, Nattinger (1988) has also been known as one of the earliest researchers to investigate the significance of collocations. He puts forward that in order to understand the meaning of a word, learners need to pay attention to the words used with the target words

which are called collocates by means of which learners can keep the new words in their memory and also by using them, learners can infer what that word means from the context it is used. He also adds that the idea of collocations is of utmost importance for vocabulary learning, however more studies need to be conducted to analyse the potential of the use of collocations.

Over the last decades, there has been an increasing trend to study the significance of teaching collocations in applied linguistics (Richards & Rogers, 2001; 2002; Zimmerman, 1997). Similarly, Ellis (1997) mentions that language learners need to be familiar with collocations so as to be competent enough in that language.

Additionally, Shei and Pain (2000) underline the significant role collocation plays in language learning and the contribution of collocation knowledge to differentiating between native and non-native speakers. Likewise, language learners need to have sufficient knowledge of collocations so that they can be understood when they are communicating with the others (Deveci, 2004; Wallace, 1982).

Lewis (2000) also states that it is difficult to teach collocations, that's why it should be included in the process of teaching vocabulary in the language classes and the teachers should assume the responsibility of making their students aware of collocations.

Furthermore, Chan and Liou (2005) put forward the idea that the students who are studying English as a second language are not strong enough in terms of using collocations due to the fact that sufficient attention is not attached to teaching collocations in their language classes.

Maghsodi (2010) also advocates the benefits of using collocations to teach vocabulary by stating that teaching words with their L1 equivalents is quite superficial as it does not provide learners with sufficient context.

In addition, Hsu (2010) carried out a study in order to investigate the influence of teaching collocations to improve reading comprehension skills and vocabulary with 102 college students in Taiwan and reached a conclusion that when collocations are emphasized while teaching vocabulary, the students ended up with better vocabulary learning and retention.

When it comes to the current studies on collocations in Turkey, Balcı and Çakır (2012) conducted a study with 59 primary school students in Konya with the aim of investigating whether the use of collocations result in better learning and retention of vocabulary. At the end of six weeks of teaching, the results of the posttests indicated a significant difference between the posttest scores of the experiment group and those of the

control group not only in terms of vocabulary learning but also vocabulary retention of the students.

Similarly, Dağdeler, Konca and Demiröz (2020) investigated the efficiency of a mobile application called "CollocatApp" in teaching collocations with 73 students from two state universities in Turkey for 14 weeks. The study found that in terms of receptive vocabulary knowledge the application group performed better in the test results while there was no significant difference between two groups in productive vocabulary results.

2.3. The Use of Technology in Vocabulary Teaching

As a result of improvements in information and communication technologies (ICTs), there have been several developments in education both in terms of techniques and tools used. When it comes to the use of technology in teaching languages, Computer Assisted Language Learning (CALL) and Mobile Assisted Language Learning (MALL) have been quite popular among teachers and academicians working in the field. While CALL has been defined as "learners learning language in any context with, through, and around computer technologies" (Egbert, 2005, p. 4), MALL involves the use of mobile devices including mobile phones, personal digital assistants (PDAs), tablets and smartphones for language learning (Yaman & Ekmekçi, 2016).

Wahjuningsih (2018) listed the main reasons why using technology has been of great use and significance in language classrooms as in the following:

1. The higher availability of Internet access,
2. The tendency and fondness of the young generation to technology,
3. The high popularity of English as the international language,
4. The availability of authentic tools and materials,
5. The capability of the Internet to promote cooperation and communication among the learners,
6. Learners' expectation of their schools to integrate more technology in their classes,
7. The opportunities that ICT tools provide to learners with regard to being exposed to the language and practising four main language skills,
8. The mobility and availability of technology both at school and at home whenever students want.

Due to these reasons mentioned above, CALL and MALL tools and applications have gained more popularity in EFL contexts. As a result of that, a number of studies have been conducted to investigate the role of technology in language learning (Chinnery, 2006; Çakır, 2015; Godwin-Jones, 2011; Kukulska-Hulme & Shield, 2008; Mehta, 2012; Rahimi&Miri,

2014; Saran, Seferoglu&Cagiltay, 2009; Wu, 2014; Yaman, Şenel&Yeşilel, 2015, as cited from Yaman & Ekmekçi, 2016).

When the studies conducted on the use of technology in language learning are analysed, there are several advantages of such tools suggested in these studies. For instance, Kukulska-Hulme (2010) underlines the importance of mobile learning as it increases participation of the students in the learning process.

On the other hand, Gallardo – Echenique et al (2015) stresses the adaptability of mobile devices to be used not only inside but also outside the language classes and also states that students can improve their digital competence through these devices.Similarly, Crompton, Olszewski and Bielefeldt (2015) emphasize that with the help of MALL, language learners have the opportunity to learn whenever they want, wherever they want and at their own pacing.

Moreover, Dewi (2016) attracts attention to the link between mobile tools and motivation of learners by stating that the use of mobile tools to teach languages is useful to encourage the learners of generation Z to cooperate with their classmates since they have their mobile devices with them all the time.

When it comes to the studies that investigated the use of CALL and MALL applications in teaching vocabulary in Turkey, and a number of researchers concluded that the use of such applications offers several benefits for learners with regard to vocabulary learning, better retention and promoting a more positive attitude to language learning (Baturay, 2007; Kocaman 2015).

Additionally, Basoglu and Akdemir (2010) also conducted a study with 60 students who were preparatory students in a university in Turkey to investigate the effects of using an online learning program to learn vocabulary. They found that the students who studied vocabulary using a learning program via their mobile phones improved their vocabulary better than the ones studying vocabulary via printed materials.

2.3.1. The Use of Quizlet in Vocabulary Teaching: Among the most popular applications which are used by language learners, Quizlet has been one of the most widely used applications with 60 million users from 130 countries according to the current data on its website. Ulla et al (2020) also state that Quizlet has been chosen among the most common applications which are preferred by English lecturers at tertiary level due to the fact that thanks to using Quizlet language classes have become more exciting and suitable places for the students to learn English. There are many reasons for the popularity of Quizlet among language learners. For instance, Samur (2012) explains the benefits of using Quizlet in

vocabulary learning by stating that learners have the opportunity to use multiple senses to learn the words they study through repeated exposure to them many times because they are stimulated by a variety of user-based choices including auditory, visual, and kinaesthetic ones.

Similarly, with the aim of investigating the use and benefits of Quizlet and digital flashcards in vocabulary learning, Ashcroft and Imrie (2014) examined the features and all modes of Quizlet using "The Substitution Augmentation Modification Redefinition (SAMR) Model" which was developed by Puentedura (2006) and used to evaluate the integration of a technology and its influence on both teaching and learning. The results of their analysis indicated that Quizlet is an effective application in terms of these four criteria of the SAMR Model. The evaluation of Quizlet in accordance with each criterion is given below:

1. With regard to the "substitution" criterion, users can prepare digital versions of paper flashcards online with the same function.

2. To meet the "augmentation" criterion, the technology needs to offer some better functional improvement, and in the case of Quizlet, using visuals and audio can be regarded as this functional improvement.

3. As for the "modification" criterion, producing a test using the vocabulary sets, monitoring process is considered as transforming classroom practice.

4. Finally, "redefinition" criterion requires creating new tasks which would not be possible without the use of computer technology. And in terms of Quizlet, the users can share the tasks, prepare the sets and share them with their classmates, and this means that Quizlet enhances collaboration with the classmates possible. Also, this collaboration is not restricted only to classmates, but users can collaborate with other users from different schools, cities or countries.

In brief, the analysis of Ashcroft and Imrie (2014) indicated that Quizlet is an effective integration of technology and better than paper flashcards.

Likewise, Anjaniputra and Salsabila (2018) conducted a study so as to investigate the merits of using Quizlet in university classes in particular its effects on vocabulary learning with 30 students in four sessions. The study results revealed four main advantages of using Quizlet to improve vocabulary learning which are given below:

1. The first advantage the students suggested was enjoyable learning, in other words, the students mentioned that different modes on Quizlet, turned vocabulary learning into a fun activity.

2. Also, the students said that they could study at home and monitor their own progress, which increased learner autonomy.

3. Moreover, the students reported that they tried to do their best to learn new words on Quizlet so that they could get top scores, which means that the sense of competition on Quizlet played a role in increasing persistence of the students.

4. Finally, the use of Quizlet increased the student participation in the class, which was the fourth merit of Quizlet the researchers concluded.

In addition to these studies focusing on the advantages of Quizlet in learning languages which are mentioned above, there are a number of other studies investigating the efficiency of using Quizlet in vocabulary teaching in the literature, and the most leading and the most current ones are listed below in the chronological order with a brief summary of each study.

To begin with, Dreyer (2014) conducted a study with 96 students from a low-performing urban high school in the USA. The study lasted over 14 weeks during which the students in the experiment group were encouraged to study vocabulary using Quizlet, while the students in the control group did not use it. During the study, the students were provided with new words every Monday and they had vocabulary check quizzes every Friday. The results of the quizzes were analysed and compared. In addition, since using Quizlet was not a compulsory task for the students, the researcher followed the student activities using teacher modes on Quizlet thanks to which teachers can monitor how many modes the students finished studying or how often they used the application. Thanks to this data saved on Quizlet, the researcher compared the test results by paying attention to certain criteria including, whether the students used Quizlet or not, how many modes they studied on Quizlet, how often they studied on Quizlet and finally the frequency of using Quizlet each week. The results of the study indicate that using Quizlet to make a revision of vocabulary increased the scores of most students, which showed that there is a positive correlation between using Quizlet and short-term vocabulary retention. The study also reached a conclusion that the more frequently the students used Quizlet to study vocabulary, the better test results they achieved in the vocabulary quizzes.

In addition, Ashcroft, Cvitkovic and Praver (2016) carried out a study with the aim of investigating the effectiveness of digital flashcards and paper flashcards with 139 university students in Japan. The participants went through both types of treatment, with paper flashcards and digital ones on Quizlet in the research which lasted two semesters. The results of the study indicated that although the participants in both groups increased their English

proficiency level and vocabulary, there was a significant difference between the test results of the Quizlet group and those of the paper flashcards group among low-level participants, but not among high-level ones. The researchers concluded that the reason why low-level groups who studied with Quizlet performed better may be related to various activity modes on Quizlet and its nature of giving immediate feedback, both of which may probably increase the motivation of the participants. The researchers also suggested that higher sense of control in addition to better chances of learner autonomy thanks to a variety of activities on Quizlet may have helped low-level participants to decrease their disadvantaged position in terms of metacognitive awareness compared to high-level ones.

Moreover, in the research by Wright (2016), the possible effects of Quizlet on vocabulary learning was investigated with 106 private university students over a semester of 15 weeks in Japan. The results of the research suggested that Quizlet is likely to be effective for vocabulary learning if students and teachers pay attention to preparing accurate vocabulary sets.

Similarly, Barr (2016) investigated the effects of Quizlet and started a study with 32 students at Tamagawa University. After monitoring the student progress on the application, he concluded that the students who used Quizlet scored better than the ones who did not on the vocabulary tests.

On the other hand, Kalecky (2016) conducted a study with 48 students aged between 15-18 studying at a technical and vocational school in Ústí nad Labem in the Czech Republic with the aim of investigating the effects of using Quizlet in terms of vocabulary learning in comparison with a note-book group. The study results showed that while some of the participants improved their vocabulary knowledge better than the control group, the participants from the low-performing experiment group did not do better than the notebook group. The researcher stated that achieving the aim of learning vocabulary is closely related to spending enough time on Quizlet, so the students in the low-performing group did not perform very well in vocabulary tests as they did not spend enough time on Quizlet. In addition, the study also concluded that the students who used Quizlet during the research had a positive perception of Quizlet and had fewer spelling mistakes compared to the students in the notebook group.

Additionally, Wolff (2016) used Quizlet live mode with his four classes of engineering students at college to learn about their perceptions and his study discovered very positive results. He found that 95.8 per cent of the students stated that Quizlet is very effective to learn technical vocabulary and they got better test results thanks to using Quizlet. Wolff's

study (2016) also found that the students were quite happy to study on Quizlet. The students also demanded to play Quizlet live game more often because Quizlet live mode was their favourite mode on Quizlet, and this may be related to its competitive nature which makes students very excited to play again and again.

Likewise, Dizon (2016) carried out a semester-long study with 9 Japanese students who used Quizlet for 10 weeks to study academic vocabulary. The results of the posttests indicated that the students attained a significant achievement in learning vocabulary and also the students commented that using Quizlet is effective and motivating for them to learn L2 vocabulary.

As for the Quizlet studies in Turkey, Korlu and Mede (2018) aimed to investigate the influence of using vocabulary in their study with 40 preparatory students at a foundation university in Turkey and the results of their posttest indicated that Quizlet use contributed significantly to vocabulary learning and retention. They also found that not only students but also teachers had positive perceptions regarding Quizlet use.

Furthermore, with the aim of investigating the difference between using collocations and using synonyms on Quizlet to teach new words, Solhi Andarab (2019) conducted research with 70 EFL students studying at the preparatory school at a private university in Turkey. In his study, although there was no significant difference between the test scores of the experiment group and those of the control group, the participants in the experiment group who studied with collocations had relatively higher posttest mean scores.

In addition to these, Çinar and Ari's (2019) research with 71 high school students in Eskisehir, in Turkey which lasted 11 weeks with the aim of investigating the effect of Quizlet on vocabulary learning and retention. When they compared the pretests and the posttests of the control and experiment group, the posttest means of the participants in the experiment group was higher than the ones in the control group in terms of vocabulary learning and retention, which indicated that Quizlet played a very significant role not only in vocabulary learning but also in vocabulary retention. They also found that Quizlet changed the perception of the students towards learning English positively.

On the other hand, in their study with 62 high school students in Thailand, Sangtupim & Mongkolhutthi (2019) investigated the satisfaction of the students with Quizlet, their favourite modes on Quizlet, the advantages and the challenges of using Quizlet to learn vocabulary. The results of their study concluded that the majority of the students were happy with using Quizlet, and their favourite modes were match and learn. As for the benefits the study suggested, a sense of "everywhereness", being able to study Quizlet anytime and

anywhere they want, was the most common response of the students as the most important advantage of using Quizlet. Also, they stated that challenging, effective and fast activities helped them improve their vocabulary. Lastly, with regard to the challenges of the Quizlet, the students in the study suggested that it would be better if they could search for synonyms on Quizlet and if the application could help them with parts of speech, which was confusing for them.

As for the studies conducted on the efficiency of Quizlet in this decade, Bueno-Alastuey and Nemeth (2020) investigated the effects of student-prepared Quizlet sets and podcasts with 25 participants in Pamplona, in Spain and they reached a conclusion that both of the groups in the study showed similar improvement in terms of vocabulary learning and retention, however, the participants showed higher satisfaction and preference of using Quizlet sets.

Additionally, Toy & Buyukkarci (2020) carried out a study with 50 EFL teachers over 10 weeks with the aim of investigating the perception of EFL teachers about how efficient using the Quizlet is from their point of view. After using Quizlet in their classes throughout the study, the EFL teachers stated that Quizlet was effective to teach vocabulary in their classes and three main advantages they mentioned were related to boosting the motivation of students, enhancing learner autonomy, and finally improving different language skills of the students.

Moreover, in their study, Waluyo and Bucol (2021) worked with 65 university students in Walailak University, Thailand and the posttests they applied after 10-week long implementation period showed that the participants using Quizlet at home performed much better than the ones who did not, which indicated that the use of Quizlet contributes significantly to vocabulary learning.

Also, Aksel (2021) conducted a study with 92 university students in Turkey to investigate the efficiency of Quizlet for vocabulary learning and concluded that the results of the posttest showed that the scores of the experiment group were considerably higher than the control group. Also, the students expressed positive feelings about using Quizlet stating that Quizlet is an effective and encouraging tool to learn vocabulary.

Additionally, in the study of Torres Álvarez (2022) which was conducted during the COVID-19 pandemic in a private institution in Ecuador, 21 students at the age of 16 or 17 participated first six sessions face to face and last two sessions via Zoom platform, and when the posttests of the participants were evaluated, the results showed that the use of Quizlet positively contributed to vocabulary learning.

Similarly, Jannah, R. (2022) investigated the perception of an English teacher and eight students of secondary school in Kelumpang Selatan, and found that the observed advantages of Quizlet were “self-directed learning”, providing the students with a chance to evaluate their vocabulary knowledge themselves, being easy to use and its audio-visual content.

Likewise, the results of the survey Nguyen, Nguyen, Nguyen, Mai & Lee (2022) carried out with 100 university students in Vietnam demonstrated that Quizlet had a “facilitating role in self-study of vocabulary”, promoted an entertaining learning atmosphere and increased learning motivation of the students.

Finally, Yu and Luo (2022) investigated the effectiveness of using Quizlet to teach vocabulary in comparison to traditional methods in their research with 140 students half of whom were in the experiment group and the other half were in the control group. The results of the posttests indicated a significantly better improvement in the vocabulary learning of the Quizlet group than that of the control group. Also, their survey results demonstrated that the students in the Quizlet group expressed positive comments with regard to using Quizlet to learn vocabulary.

In addition to these studies summarized above, there have been several current studies which reached the conclusion that students who use Quizlet to study vocabulary showed higher test results compared to the ones who study vocabulary using traditional methods (Al-Malki, 2020; Chaikovska & Zbaravska, 2020; Ho & Kawaguchi, 2021; Setiawan & Putro, 2021).

Additionally, a number of current studies also investigated both effectiveness of Quizlet in vocabulary teaching and the perception of students towards the use of Quizlet, and they concluded that Quizlet was quite effective to teach new words and at the same time it increased the motivation of the students who had positive feelings to use Quizlet while studying vocabulary (Aprilani, 2021; Avisteva & Halimi, 2021; Fithriani, 2021; Van et al, 2020).

The results of the studies mentioned above are also in line with several other studies conducted with the aim of analysing the perception of students towards using Quizlet while learning new words. A number of such studies concluded that the use of Quizlet had positive impact on the motivation of students to study vocabulary and the majority of students were satisfied with several study and play modes of Quizlet which are considered to be not only useful but also practical by the students (Alhadiah, 2020; Khuong & Ngoc 2021; Masfufah,

2020; Pham, 2022; Prayogi & Wulandari, 2021; Styaningrum et al, 2021; Okkan & Aydın, 2020).

CHAPTER 3
METHODOLOGY

The main aim of this thesis is to investigate the efficiency of using Quizlet to teach vocabulary in two ways with collocations as well as with synonyms and definitions to A1 students in the preparatory school of a state university in Turkey during the fall semester of 2021-2022 Academic Year. This is planned to be achieved by comparing the scores of the participants in the Quizlet groups with those of the participants in the control group who used traditional methods to learn vocabulary through posttests and delayed posttests. In other words, while the participants in the experiment groups are planned to study the vocabulary exercises on Quizlet, the ones in the control group will do the same vocabulary exercises using a printed worksheet and a pencil.

This study used a mixed method design containing both quantitative data and qualitative data for a variety of reasons including enriching the data, looking at the problem from different aspects, for a better comprehension of the research questions and for triangulating the results of the research (Creswell, Plano-Clark & Smith, 2011).

This methodology section is divided into four main sections which can be listed as research design and procedure, participants, instruments, and finally data collection and analysis.

3.1. Research Design & Procedure

Prior to starting the research, the researcher applied to İstanbul University Research Ethics Committee for getting an official approval for the research. The committee considered the research proposal acceptable and approved it (see Appendix 1). After getting the approval, the consent forms were distributed to all participants in three classes in order to inform them about the research. After the consent forms which were signed by the participants were collected, the research started. All stages of the research including the practice sessions done in each group for three weeks, the pretests, posttests, delayed posttests conducted after the practice period, and finally the interview with the participants who used Quizlet during the research are briefly indicated below (see Table 1).

Table 1

Procedure

	Experiment Group 1 (EQC)	**Experiment Group 2 (EQ)**	**Control Group (CG)**
Week 1	✓ Target words were chosen from the related units of the book. ✓ Pretests, posttests and delayed posttests were prepared and proofread.		
Week 2	✓ A pilot pretest was conducted in two independent classes so as to determine the exact 24 target words out of 60 words. ✓ The materials to be used in each class were prepared and proofread.		
Week 3	✓ The students were informed about the study and signed the consent form showing that they were voluntary to participate in the study. ✓ The pretest was conducted in all groups. ✓ An independent t-test was done to check whether there is any significant difference between the groups, and as a result there was no significant difference between the groups when they started the research.		
Week 4	✓ Quizlet was introduced to the students. ✓ The participants created their accounts on Quizlet. ✓ The teacher created a classroom and added the participants to their online Quizlet classroom.		

Week 5	• 1st teaching practice on Quizlet • using collocations	• 1st teaching practice on Quizlet • using synonyms and definitions	• 1st teaching practice with printed worksheets • using synonyms and definitions
	8 target words / 20-30 minutes		
Week 6	• 2nd teaching practice on Quizlet • using collocations	• 2nd teaching practice on Quizlet • using synonyms and definitions	• 2nd teaching practice with printed worksheets • using synonyms and definitions
	8 target words / 20-30 minutes		
Week 7	• 3rd teaching practice on Quizlet • using collocations	• 3rd teaching practice on Quizlet • using synonyms and definitions	• 3rd teaching practice with printed worksheets • using synonyms and definitions
	8 target words / 20-30 minutes		
Week 8	The posttest was applied to all groups.		
Week 13	The delayed posttest was conducted in all groups.		
Week 14	The semi-structured interview was carried out with some students from the experiment groups who used Quizlet in the study.		

3.2. Participants

The number of participants to take part in this research was planned to be 120 students studying in three different A1 level classes at preparatory school at İstanbul University, where the researcher is working as an instructor of English. However, as the attendance to classes was not obligatory at preparatory school due to COVID-19 pandemic restrictions, the number of students who participated in the classes decreased considerably after a few weeks in the fall semester when the research was conducted. After the practice lessons and posttests conducted,

the data collected from the students was compared and analyzed. Accordingly, the participants who did not take part in all three practice lessons or who did not take any of the pretest or posttests were determined and excluded from the study.

As a result, the number of participants who took part in all three practice lessons and who took all the tests was between 20 and 23 in each class. To keep all three groups equal in number, the data gathered from 20 participants from each class was taken into consideration, which made the number of participants 60 in total. Stratified randomization technique was preferred to take out the extra participants from the groups so as to make an accurate and objective representation of each group. The groups were classified into three main sub-groups depending on their achievements in the posttests and one participant from each sub-group was taken out.

All participants who took part in the research were between the ages of 18 and 22. In addition, all of the participants had taken the placement exam of Istanbul University at the beginning of the semester, and they were placed into A1 level classes in preparatory school. Lastly, the researcher had been teaching in all of these three classes as a main course teacher since the beginning of the semester. After being informed about the research briefly by the researcher, all students agreed to participate in the research and signed consent forms before the research started (see Appendix 2 and Appendix 3).

In this research, there were three different groups participating in the research under different circumstances. First of all, two experiment groups (EQC and EQ) used Quizlet to study the target words over three weeks of practice and one group which was the control group (CG) used traditional methods using a printed worksheet of the same vocabulary practice. In other words, the target words and the content of the vocabulary exercises were the same in all classes, but as a means of instruction, two groups studied them via Quizlet and the control group studied those using printed worksheets.

Additionally, of the two experiment groups, experiment group 1 (EQC) studied the target words with collocations and experiment group 2 (EQ) studied the target words on Quizlet via synonyms and definitions of the words. To be more specific, while experiment group 1 used Quizlet to study the target vocabulary with collocations, which is not very common in the literature, experiment group 2 studied the same words with their synonyms and definitions on Quizlet which is one of the most popular ways of preparing vocabulary sets on Quizlet.

To avoid any confusion or inconvenience throughout the thesis and to keep the participants anonymous, each group was given a short name; actually a code, which are all indicated briefly below (See Table 2).

Table 2

Participants

Groups	**The number of participants**	**Instrument**	**How to present the target words**
Experiment Group 1 (EQC)	20	Quizlet sets	With collocations
Experiment Group 2 (EQ)	20	Quizlet sets	With synonyms and definitions
Control Group (CG)	20	Printed Worksheets	With synonyms and definitions

3.3. Instruments

3.3.1. The Choice of Target Words: After getting the necessary approvals, the target words to be introduced during the classroom practices of the research were determined. The number of these target words was decided by taking the suggestion of some researchers. For instance, Biemiller (2003) and McCarten (2007) emphasize in their studies that the students should not be overloaded with an overwhelming number of new vocabularies in each lesson and the ideal number of vocabularies to be introduced should be 8-10 maximum. That's why the number of words to be taught in each session was planned to be 8, which made 24 words in total in three following weeks. The target words were chosen from the course book the students had been using at the time of the research which was Cutting Edge Pre-intermediate. According to the syllabus of the A1 level program, two units were planned to be covered each week from this book. In this way, the practice sessions of the research were fully compatible with the regular schedule of the students both in terms of content and timing.

In order to determine the target words for the research, the vocabulary selection guideline which was used in Texas Reading Academy in 2002 and adapted from Cooper (1997) was followed (Sedita, 2005). That is to say, the words which were important to understand the texts, which were challenging for the students, and which were frequently used

were chosen. According to the syllabus, there were two units for each week which made 6 units for three weeks. Thus, 20 words from two units weekly were chosen which made 60 words in total for three weeks. These 60 words were all appropriate in terms of the following criteria (Sedita, 2005):

- "Words that will be frequently encountered in other texts and content areas."
- "Words that are important to understanding the main ideas."
- "Words that are not a part of your student' prior knowledge."
- "Words unlikely to be learned independently through the use of context and structural analysis" (p.6).

After determining these 60 words, a pilot pretest was conducted to 30 students from two independent classes who are studying at the same level in the same preparatory school. When the results of the pretests were analyzed, 52 of these words were not known by all of the students. After excluding the known words, 8 words for each week and 24 words in total which meet the criteria above the most were chosen as target words for the study.

3.3.2. Teaching Materials: The materials to introduce and practice the target eight new words were prepared by the researcher for each week. Three worksheets were prepared and each of them consisted of two parts, namely a matching part and a fill in the blanks with the words from the box part (see Appendix 4). Vocabulary sets were also prepared on Quizlet depending on the worksheets for the experiment group 2 (Appendix 5), and the experiment group 1 with collocations (Appendix 6).

The matching part consisted of 8 questions. Likewise, the second part also included 8 questions. The students were expected to fill in the blanks with the words in the box given. One of the main reasons for choosing these two exercise types is that the students are quite familiar with these exercise types both in their classes and in the quizzes they take throughout the year. In addition, these two question types are also available on Quizlet. Therefore, these question types were chosen so that there would not be any discrepancies between the experiment groups and the control group with regard to the medium of practice. Moreover, multiple choice question type was also possible on Quizlet, but it was not chosen as there would be a chance factor which would make the exercise easier for the students.

While preparing the materials for the experiment group 2 and the control group, in addition to definitions, synonyms of the words were also added. While adding the synonyms, the synonyms with which the participants are more familiar and those which are easier to understand for the participants were chosen. The main reason for using synonyms in addition to definitions is that they are shorter, more practical and so easier for learners to associate

them with the new target words so that they can have better retention. According to Nation' (2001) concept of "learning burden", the learners of a second language can learn new words better and more easily when they are more familiar with them. This familiarity may derive from their previous knowledge of the language they are learning, or that of other similar languages. In other words, the more similarities and familiarity between the previously learned knowledge there are, the easier the learners can learn the new words. In the present study, synonyms of the words can provide the students with the familiarity and chance to learn more easily. Webb (2007) also found that using synonyms while teaching a second language has a positive effect on learning new words.

When it comes to the materials of the experiment group 1, vocabulary sets were prepared on Quizlet by paying attention to collocations of the target words. Collocations play a significant role in teaching new words as they make it easier to learn (Carter and McCarthy, 2014; Biskup, 1992; Nattinger, 1988)

Before deciding on the exercise types and preparing the materials for each group, the researcher consulted two colleagues who are working in the same institution for several years and who have enough experience in testing and material preparation. After the materials were finalized, the same colleagues proofread them in terms of content, efficiency and the suitability of the materials with the participant.

3.3.3. Quizlet: When it comes to the implementation of the materials in the classes, while the control group studied the materials in traditional ways using papers and pencils, the experiment groups studied the same material on Quizlet which the researcher prepared. Quizlet is a website which is mainly used to study vocabulary. Its application on mobile phones and tablets is also available. Quizlet offers 7 different study modes to its users as well as an in-class game mode which is called "live". These modes are briefly summarized below:

- Flashcards: Users can have a look at the online flashcards one by one by clicking on each word. They can also see the related pictures on the flashcards.
- Learn: Users are expected to choose the correct answer among four multiple choice questions.
- Write: Users are expected to write the correct word by reading its explanations or the pictures.
- Spell: Users listen to the words and write them. If they cannot write the words correctly, Quizlet spells the word until they are written accurately.

- Test: This mode includes different ways of testing the words in the set studied. There are true-false questions, matching questions, multiple choice questions and writing the correct answer questions.
- Match: At the end of the study set, match mode scatters all words with their explanations so that users can match them.
- Gravity: This game mode which used to be called “space race” requires users to read the explanation of the words and write it as quickly as possible before a comet hits the Earth.
- Live: This is an in-class game mode. Teacher starts the game, and the students join the game with a password. Quizlet puts the students into several groups, and they race with the other groups using their mobile phones.

To be compatible with the printed worksheets, the experiment groups used especially match and test modes of Quizlet. In addition, experiment group 1 focusing on the use of collocations studied the same content with some emphasis on collocations on Quizlet. One of the main advantages of using Quizlet is that it is quite practical and easy to use in the classrooms without any need of printing. The students can study the words using their mobile phones any time they want. Furthermore, it is pretty easy for the teacher to prepare vocabulary sets on Quizlet.

3.3.4. Pretests: In the pretest, the participants were asked to write the Turkish meaning, the synonyms and definitions of the target words. They were also asked to make a sentence with the target words if they could (see Appendix 7). The reason for not only asking Turkish meanings and definitions of the words but also demanding participants to make a sentence is to check both receptive and productive knowledge of the students. Stahl (1999) states that knowing a word is much beyond its definitional knowledge, but requires knowing more about it like its different uses, synonyms or its changing meanings in different contexts. Therefore, children need to see the words many times in different contexts. Goulden and Nation (1990) also put forward that knowing a word does not guarantee the ability to use it, and distinguishing between reception and production is quite difficult as at what point the receptive vocabulary can turn into productive one is not clear.

3.3.5. Posttest*:* In the posttest, the participants were asked to write the Turkish meaning of the words, the synonyms and definitions of the same target words, and also they were require to make a sentence with the target words as they did when they completed the pretest before the study started.

3.3.6. Delayed Posttest*:* The target words and the questions in the delayed posttest were the same with the previous posttest but put in a different order.

3.3.7. Semi-structured Interview: A semi-structured interview was conducted a week after the delayed posttests were carried out. The interview questions were asked to the students in the experiment groups who used Quizlet as an instruction tool for three weeks. The interview questions were prepared and finalized by the researcher after discussing them with two colleagues working in the field. Also, to increase the reliability of the interview questions, they were checked by Assoc. Prof. Dr. Levent Uzun, who is the supervisor of this thesis.

The interview included two parts. In the first part, three questions with multiple choices were asked to the participants. These questions aimed to learn more about how much time they spend studying on Quizlet, how often the students used Quizlet and finally whether they used the Quizlet at home, at school or in both of them. In the second part of the interview, more specific open-ended questions were asked regarding Quizlet and vocabulary learning (see Appendix 8).

3.4. Data Collection and Analysis

3.4.1. Data Collection: As for the quantitative data, the data were collected in three stages which were pretests, posttests and delayed posttests. The pretest, the posttest and the delayed posttest used in the research included the same 24 target words in the same format and only in a different order. After gathering the quantitative data with these instruments, a semi-structured interview was applied to some of the participants using Quizlet in order to gather qualitative data.

3*.4.1.1. Pretest:* The pretest was conducted in Week 3 with the aim of checking whether there is a significant difference between the achievements of the participants in three groups before the teaching started.

3.4.1.2. Posttest: A posttest was carried out in Week 8, after three weeks of teaching period finished to measure the vocabulary acquisition of the participants. The students were asked not only to write the Turkish meaning and the synonyms and definitions of the same target words, but also to make a sentence with the target words as they did when they completed the pretest before the study started.

3.4.1.3. Delayed Posttest: To measure the vocabulary retention of the students, a delayed posttest was conducted in Week 13, four weeks after the initial posttest. The target words and the questions in the delayed posttest were the same with the previous posttest, but put in a different order.

3.4.1.4. Semi-structured Interview: A semi-structured interview was conducted in Week 14, a week after the delayed posttests were carried out. The interview questions were asked to the students in the experiment groups who used Quizlet as an instruction tool for three weeks.

3.4.2. Data Analysis: Since the present study followed a mixed method research design, a variety of data analysis means was used after the data gathering stage. With the aim of analyzing quantitative data of the research, which were collected through a pretest, a posttest and a delayed posttest, IBM SPSS Statistics 2008 was used. The scores of the pretest, the posttest and the delayed posttest were initially calculated to get the means of the experiment groups and the control group.

Before analyzing the data using SPSS, the pretests and posttests of the groups were calculated by marking the pretests, posttests and delayed posttests papers of the participants. The pretest, the posttest and the delayed posttest included the same content, but in a different order. In these tests, there were 24 target words in the first column. In the second column, the participants were asked to write the correct Turkish meaning of these words. In the third column, they were asked to write the synonyms and definitions of them. Finally, in the fourth column, they were asked to make a sentence using the given target word. The correct answers were given 1 point and the ones with incorrect answers were given 0. The sentences with minor grammar mistakes were accepted. After marking the tests, the mean scores of the students were calculated out of 24. Since the pretests, posttests and delayed posttests were composed of open ended questions, the researcher also asked two colleagues from the preparatory school to mark each paper so as to increase the inter rater reliability. After assessing each test, all answers of the students were transferred on Excel sheets to be used for SPSS analyses.

After these steps, a normality test was applied so as to determine which tests to be used to analyze the data. As a result of the normality test, the skewness and kurtosis values of the posttest means were between .512 and .992 which shows a normal distribution (Tabachnick et al. 2007). That's why parametric tests including descriptive statistics, independent samples t-tests were employed to analyze the data collected. Using an independent t-test analysis, the scores of each group were compared in accordance with the research questions one by one to investigate whether there is any significance between each experiment group and the control group.

As for the analysis of qualitative data which was collected through a semi-structured interview in week 14 after the delayed posttest was carried out. The main aim of this interview was to answer the research question 3 of the present thesis which was to investigate

the opinions of the participants about Quizlet and vocabulary learning. To analyze the results of the interview questions, the percentages of multiple-choice questions were calculated, and content analysis was made for open-ended questions. While doing the content analysis of open-ended questions, different opinion topics emerged related to each question. Then, the recurring themes were determined, and frequency of these themes was listed. The results of the interview were analyzed one by one in accordance with each question in the interview. While determining the recurring themes and categorizing the comments of the participants into certain groups, the researcher consulted two colleagues who are working in the same institution and who have experience in content analysis so as to increase the interrater reliability of the analyses in the qualitative part of the research.

CHAPTER 4
RESULTS & FINDINGS

4.1. Quantitative Findings

The present study aimed to investigate how effective the use of Quizlet with collocations is not only in terms of vocabulary learning in the short run, but also in terms of vocabulary retention in the long run. The quantitative results are reported in the light of and in accordance with research questions 1 and 2. IBMM SPSS Statistics 28 was used by the researcher to analyze the quantitative data. For the research question 3, content analysis was done to analyze the qualitative data gathered through a semi-structured interview.

4.1.1. Pretest Findings: Before the teaching period started, two pretests were conducted by the researcher to be able to see whether there is any significant difference in the achievements of the experiment groups and the control group before the treatment. The mean scores of pretests of the experiment group 1 (EQC), the experiment group 2 (EQ) and the control group (CG) were calculated. After that, an independent t-test analysis was conducted between the pretest means of the experiment group 1 and those of the control group (see Table 3).

Table 3

Independent Samples t-test results comparing the pretest means of the experiment group 1(EQC) and those of the control group (CG)

Pretest	N	Mean	SD	t	sig
				1.13	.26*
Experiment Group 1 (EQC)	20	.90	.79		
Control Group (CG)	20	.60	.88		

**p>.05*

The results of the independent t-test analysis indicated that there was no significant difference between the scores of the participants in the control group (M= .60, SD= .88) and the experiment group 1 (M= .90 SD= .79) in terms of their vocabulary knowledge; t(38) = 1.13, p = .26.

Also, an independent t-test analysis was conducted between the pretest means of the experiment group 2 and those of the control group (see Table 4).

Table 4

Independent Samples t-test results comparing the pretest means of the experiment group 2 (EQ) and those of the control group (CG)

Pretest	N	Mean	SD	t	sig
				1.46	.15*
Experiment Group 2 (EQ)	20	1.1	1.25		
Control Group (CG)	20	.60	.88		

**p>.05*

The results of the independent t-test analysis indicated that there was no significant difference between the pretest means of the participants in the control group (M= .60, SD= .88) and the experiment group 2 (M= 1.1 SD= 1.25) in terms of their vocabulary knowledge; t(38) = 1.46, p = .15. After these pretests, the treatment started.

4.1.2. Mean Scores of Pretests, Posttests and Delayed Posttests: Before carrying out several independent t-tests to investigate the research question 1 and research question 2, the researcher calculated the mean scores of the pretest, posttest and the delayed posttest of all groups using SPPS (see Table 5).

Table 5

Descriptive Statistics of pretest, posttest and delayed posttest mean scores

		Pretest	Posttest	Delayed Posttest
Experiment Group 1	Mean	.90	18.40	17.60
(EQC)	N	20	20	20
	Std. Deviation	.79	6.05	11.96
	Variance	.62	36.57	142.99
Experiment Group 2	Mean	1.10	11.15	9.80
(EQ)	N	20	20	20
	Std. Deviation	1.25	10.20	4.98
	Variance	1.57	104.13	24.80

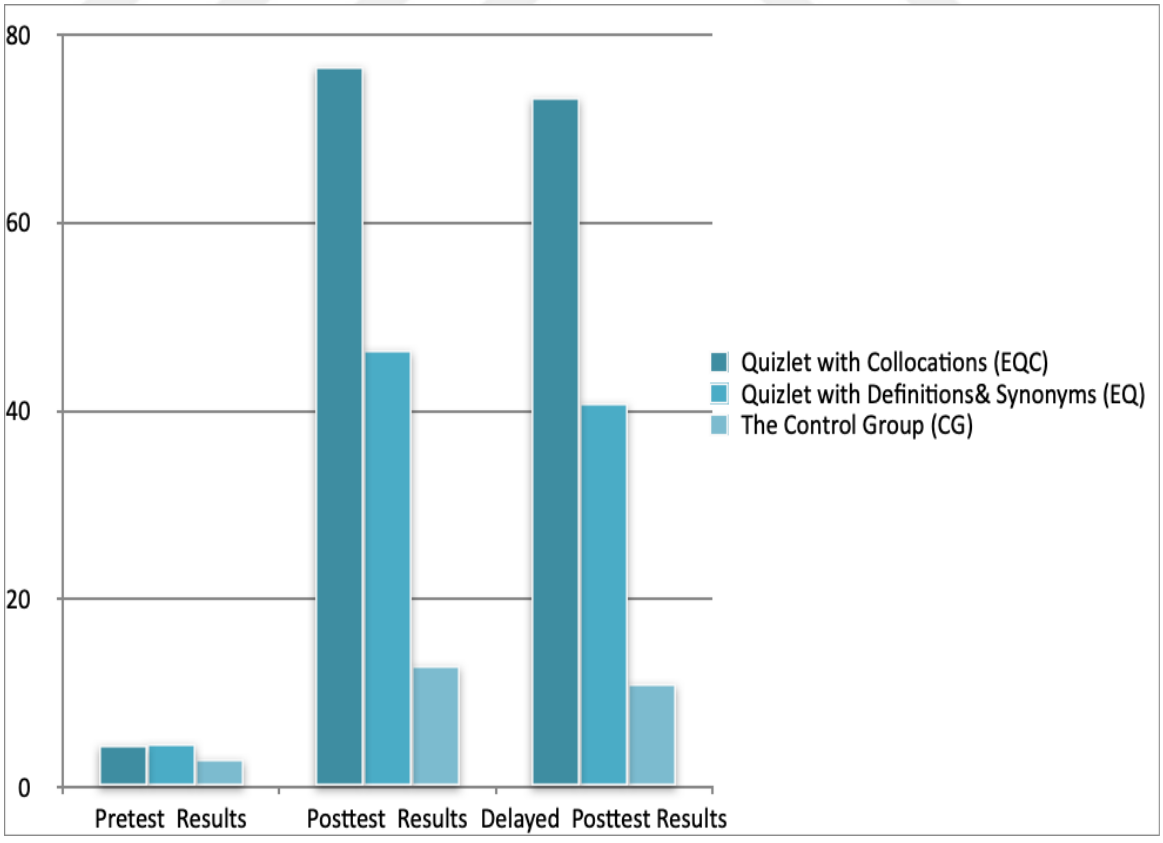
Control Group	Mean	.60	3.10	2.65
(CG)	N	20	20	20
	Std. Deviation	.88	1.83	1.69
	Variance	.78	3.36	2.87

The data in the table above briefly shows the means of all groups in three different tests. The pretest means of two experiment groups, which are the experimental group 1 with collocations (EQC) and the experiment group 2 with definitions and synonyms (EQ), and the control group (CG) are .90, 1.10 and .60, respectively. Additionally, the posttest means of these three groups, namely EQC, EQ and CG, are 18.40, 11.15 and 3.10 while their delayed posttest means are 17.60, 9.80 and 2.65, respectively.

In addition, since these mean scores are out of 24 in accordance with the number of questions, the mean scores of all classes out of 100 are shown in the bar chart below to see the differences among three classes in each test more clearly (See Figure 1).

Figure 1

The Means of Pretests, Posttests and Delayed Posttests



4.1.3. Research Question 1: The research question 1 aimed to investigate how effective Quizlet is in terms of learning new vocabulary compared to traditional methods. To reach that aim, three sub research questions were asked under this research question by comparing the posttest results of experiment group 1 (EQC) and the experiment group 2 (EQ) with those of the control group (CG).

4.1.3.1. Research Question 1 Part A: Is Quizlet more effective than traditional methods to learn new vocabulary?

To answer this research question, an independent t-test analysis comparing posttests means of the experiment group 2 (EQ) and those of the control group (CG) was conducted (see Table 6).

Table 6

Independent Samples t-test results comparing posttest means of the experiment group 2 (EQ) with those of the control group (CG)

Posttest	N	Mean	SD	t	sig
				3.47	<.001*
Experiment Group 2 (EQ)	20	11.15	10.20		
Control Group (CG)	20	3.10	1.83		

**p<.05*

As it can be clearly seen in Table 6, an independent samples t-test conducted to compare posttest means indicated a significant difference between the posttest means of the control group (M=3.10, SD=1.83) and those of the experiment (M= 11.15, SD=10.20) group 2; t(38)= 3.47, p<.001.

4.1.3.2. Research Question 1 Part B: How effective is Quizlet use with collocations to learn new vocabulary?

To be able to answer this research question, an independent t-test analysis was conducted in order to compare the posttest means of experiment group 1 (EQC) and those of the control group (CG) (see Table 7).

Table 7

Independent Samples t-test results comparing the posttest means of the experiment group 1 (EQC) with those of the control group (CG)

Posttest	N	Mean	SD	t	sig
				10.83	<.001*
Experiment Group 1 (EQC)	20	18.40	6.05		
Control Group (CG)	20	3.10	1.83		

**p<.05*

The results of the independent samples t-test conducted on the posttest means indicated a significant difference between the posttest means of the control (M=3.10, SD=1.83) and the experiment group 1 (M= 18.40, SD=6.05) groups; t(38)= 10.82, p<.001.

4.1.3.3. Research Question 1 Part C: Is there a significant difference between learning vocabulary on Quizlet with collocations, and with synonyms and definitions?

To answer this research question, an independent t-test analysis was conducted in order to compare the posttest means of the experiment group 1 (EQC) and those of the experiment group 2 (EQ) (see Table 8).

Table 8

Independent Samples t-test results comparing the posttest means of experiment group 1 (EQC) with those of the experiment group 2 (EQ)

Posttest	N	Mean	SD	t	sig
				2.73	.009*
Experiment group 1 (EQC)	20	18.40	6.05		
Experiment group 2 (EQ)	20	11.15	10.20		

**p<.05*

According to the results of the independent samples t-test conducted on posttest means in Table 8, it can be observed that there was a significant difference in the mean scores of the experiment group 1 (EQC) (M=18.40, SD=6.05) and those of the experiment group 2 (EQ) (M= 11.15, SD=10.20) groups; t(38)= 2.73, p>.009.

4.1.4. Research Question 2: The research question 2 aimed to investigate how effective Quizlet is in terms of long-term retention of a new vocabulary item compared to

traditional methods. To reach that aim, three sub research questions were asked under this title by comparing the delayed posttest means of experiment group 1 (EQC) and experiment group 2 (EQ) with those of the control group (CG).

4.1.4.1. Research Question 2 Part A: Is Quizlet more effective compared to traditional methods in terms of vocabulary retention?

With the aim of answering this research question, an independent t-test analysis was conducted to compare the delayed posttest means of the experiment group 2 (EQ) and those of the control group (CG) (see Table 9).

Table 9

Independent Samples t-test results comparing delayed posttest means of experiment group 2 (EQ) with those of the control group (CG)

Delayed Posttest	N	Mean	SD	t	sig
				6.08	<.001*
Experiment Group 2 (EQ)	20	9.80	4.98		
Control Group (CG)	20	2.65	1.69		

**p <.05*

As it can be clearly seen in Table 9, an independent samples t-test applied on the delayed posttest scores indicated a significant difference between the scores of the control group (M=2.65, SD=1.69) and those of the experiment (M= 9.80, SD=4.98) group 2; t(38)= 6.08, p<.001.

4.1.4.2. Research Question 2 Part B: How effective is Quizlet with collocations in terms of vocabulary retention?

With the aim of answering this research question, an independent t-test analysis comparing delayed posttests means of the experiment group 1 with collocations (EQC) and those of the control group (CG) was conducted (see Table 10).

Table 10

Independent Samples t-test results comparing the delayed posttest of experiment group 1 (EQC) and those of the control group (CG)

Delayed Posttest	N	Mean	SD	t	sig
				5.54	<.001*
Experiment Group 1 (EQC)	20	17.60	11.96		
Control Group	20	2.65	1.69		

**p<.05*

The results of the independent samples t-test conducted on the delayed posttest scores in Table 10 indicated a significant difference in the delayed posttest means of the control (M=2.65, SD=1.69) and those of the experiment (M= 17.60, SD=11.96) group 1 (EQC); t(38)= 5.54, p<.001.

4.1.4.3. Research Question 2 Part C: Is there a significant difference between using Quizlet with collocations, and with synonyms and with definitions regarding vocabulary retention?

With the aim of answering this research question, an independent t-test analysis comparing delayed posttests means of the experiment group 1 (EQC) and the experiment group 2 (EQ) was conducted (see Table 11).

Table 11

Independent Samples t-test results comparing delayed posttest means of experiment group 1 (EQC) and those of experiment group 2 (EQ)

Delayed Posttest	N	Mean	SD	t	sig
				2.69	.01*
Experiment Group 1	20	17.60	11.96		
Experiment Group 2	20	9.80	4.98		

**p < .05*

According to the results of the independent samples t-test conducted on the delayed posttest scores in Table 11, it can be said that there was a significant difference in delayed posttest means of the experiment group 1 (M=17.60, SD=11,96) and those of the experiment (M= 9.80, SD=4.98) group 2; t(38)= 2.69, p=.01.

4.2. Qualitative Results

The qualitative data of the research was collected through a semi-structured interview which was conducted in week 11 after the delayed posttest was carried out. The main aim of this interview was to answer the research question 3 of the present thesis which was to investigate the opinions of the participants about Quizlet and vocabulary learning. To analyze the results of the interview questions, the percentages of multiple-choice questions were calculated, and content analysis was made for open-ended questions. While doing the content analysis of open-ended questions, different opinion topics emerged related to each question. Then, the recurring themes were determined, and frequency of these themes was listed. The results of the interview were analyzed one by one in accordance with each question in the interview below:

4.2.1. Interview Question 1: This question "Did you use Quizlet regularly during the research?" aimed to investigate how regularly the participants used Quizlet during the research in the classroom and at home as an extra practice as they were expected to use them every week (See Table 12).

Table 12

Did you use Quizlet regularly during the research?

Variables	*F*
Yes	30
No	4

The table above shows that 30 of the participants mentioned using Quizlet sets regularly while only 4 of them stated that they did not use it regularly during the research. Since all students participating in the research had to use Quizlet at school, these 4 students who said they didn't use it regularly may mean that they did not use it apart from classroom as an extra practice.

4.2.2. Interview Question 2: This question "How much time did you study on Quizlet each week?" aimed at investigating the amount of time each student spent weekly to study the vocabulary sets on Quizlet (See Table 13).

Table 13

How much time did you study on Quizlet each week?

Variables	*f*
20-25 minutes	18
25-35 minutes	7
35+ minutes	9

The table above shows that more than half of the participants, 18 of them, studied vocabulary sets on Quizlet only in the class as they stated to have spent only 20-25 minutes each week on Quizlet. However, 7 participants mentioned that they spent 25-35 minutes on Quizlet each week while 9 participants stated that they studied vocabulary sets more than 35 minutes on Quizlet, which indicated that approximately half of these participants also studied on Quizlet outside their classroom.

4.2.3. Interview Question 3: This question "Do you think online tools and applications help to improve your vocabulary? How?" aimed at learning about the perceptions of the participants regarding the use of online tools in improving their vocabulary (See Table 14).

Table 14

Do you think online tools and applications help to improve your vocabulary?

Variables	*f*
Yes	34
No	0

As it is clearly seen in the table above, all of the students shared the idea that online tools and applications are beneficial for them while they are learning vocabulary.

When it comes to the second part of the question regarding how online tools help them improve their vocabulary, the ideas and comments of the participants were analyzed and it can be concluded that their ideas were related to five main themes which are listed below with their frequency (See Table 15).

Table 15

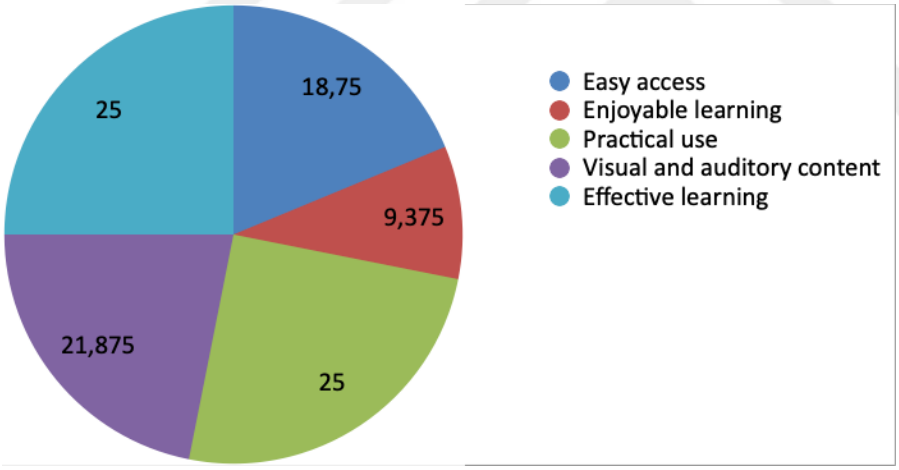
How do you think online tools and applications help to improve your vocabulary?

Variables	*f*
Practical use	8
Easy access	6
Enjoyable learning	3
Effective learning	8
Visual and auditory content	7

The responses of the participants to this question with regard to how online tools and applications help to improve vocabulary are also shown below (See Figure 2).

Figure 2

How do you think online tools and applications help to improve your vocabulary?



As it can be easily seen in the table and figure above, when the ideas and comments of the participants with regard to how online tools help them to improve their vocabulary were analyzed, five main themes were determined: easy access, enjoyable learning, practical use, effective learning and finally visual and auditory content. To be more specific, according to the results, a quarter of the participants pointed out effective learning while another quarter of participants emphasized practical use as the reason why they think online tools help them to improve their vocabulary. Additionally, these two most popular reasons were followed by visual and auditory content with 21, 8 per cent, by easy access with 18, 7 per cent, and lastly by enjoyable learning with 9, 3 percent.

To be more specific, some sentences of the participants are given below under each theme:

4.2.3.1. Practical Use: Some of the answers of the participants about practical use are:

"Online tools are very beneficial for us because they are very practical to use."

"I used to find new words using dictionaries, but now I can easily look them up with online tools."

*"*Online tools are easier and practical to study vocabulary as we can find ready vocabulary sets. They are also very timesaving."

4.2.3.2. Easy Access: Some of the answers of the participants are below:

"One of the advantages of online tools is that we can use online tools anytime we want."

"Online tools are absolutely beneficial. We can access them easily with phones all the time and we can study everywhere, even when we are on the way."

"We can study anywhere we want using our phones and headphones."

4.2.3.3. Enjoyable Learning: Some of the answers of the participants are below:

"It is very enjoyable to learn English with online tools and applications."

"Yes. Because I think online tools are much funnier than other regular learning methods."

"Yes, they help a lot. Online tools make learning more enjoyable. We don't feel like studying, but having fun."

4.2.3.4. Effective Learning: Some of the answers of the participants are below:

*"*Thanks to visual and auditory aids, online tools make remembering words easier and more permanent."

"Definitely, it helps me to remember words thanks to its rich contents about several concepts."

"Of course, the best effect of online tools is to help us to recall words."

"Yes, they are helpful. The Quizlet application is especially effective for learning and remembering words."

4.2.3.5. Visual And Auditory Learning: Some of the answers of the participants are:

"Yes, they help. Studying new words with some pictures makes it easier to remember them."

"It is very beneficial to hear how the words are pronounced."

"Online tools are well equipped in terms of visual and auditory learning, and this makes learning more permanent."

4.2.4. Interview Question 4: The responses of the participants to this question "Do you enjoy studying new vocabulary on Quizlet?" revealed positive thoughts about Quizlet use for vocabulary learning (See Table 16).

Table 16

Do you enjoy studying new vocabulary on Quizlet?

Variables	*F*
Yes	34
No	0

4.2.5. Interview Question 5: This question "What are the advantages of using Quizlet in terms of learning and remembering new words?" aimed at investigating the ideas of the participants with regard to the advantages of using Quizlet to learn new words and remember them. When the content of the participants' answers was analyzed, seven main themes were determined and given below with their frequency numbers (See Table 17).

Table 17

What are the advantages of using Quizlet in terms of learning and remembering new words?

Variables	*f*
Visual aids	9
Enjoyable learning	2
Increasing the retention of words	20
The chance of repetition	12
Different learning modes	12
Easy access and practical use	2
Fast and easy learning	5

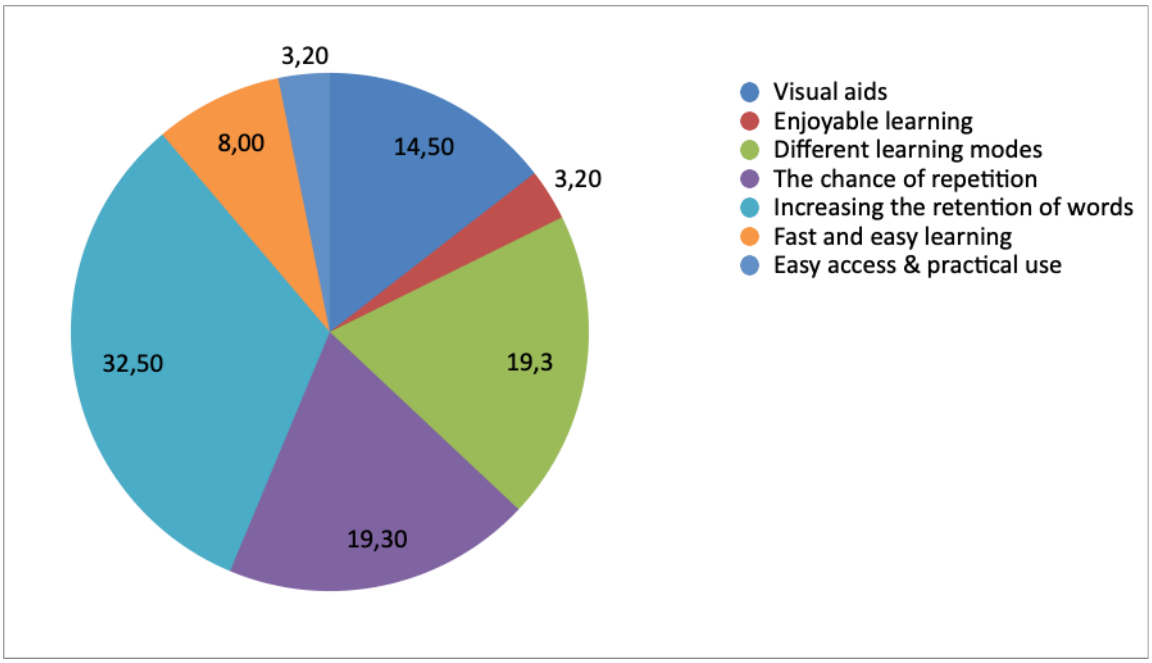
The data in the table above indicates that when they were asked about the advantages of using Quizlet to improve their vocabulary learning, the participants responded by stating a wide variety of advantages which were categorized under seven groups: visual aids, enjoyable learning, increasing the retention of words, the chance of repetition, different learning modes, easy access and practical use, and finally fast and easy learning. What stands out in the table is that the most popular advantage of using Quizlet that 20 participants put forward is increasing the retention of words. The second most popular advantages are the chance of

repetition and different learning modes, both of which were argued by 12 students for each. The use of visual aids was the third most shared advantage of Quizlet to improve learning vocabulary. This was followed by the advantage of fast and easy learning which was suggested by 5 students. Eventually, enjoyable learning, and easy access and practical use ranked among the least popular advantages mentioned by only two participants for each.

These advantages of Quizlet for learning vocabulary are also shown in a chart below to make it easier to see the distribution of each advantage (See Figure 3).

Figure 3

What are the advantages of using Quizlet in terms of learning and remembering new words?



To give more details about this interview question, some sentences of the participants are given below under each theme:

4.2.5.1. Visual Aids: Some of the answers of the participants are below:

"Visual support makes learning more effective."

"Quizlet enriches vocabulary with visuals."

"Visuals make learning more permanent."

4.2.5.2. Enjoyable Learning: Some of the answers of the participants are below:

"It is fun to study vocabulary on Quizlet."

"We learn and have fun at the same time."

***4.2.5.3. Increasing the Retention of Words*:** Some of the answers of the participants with regard to this theme are below:

"Words stay in visual memory."

"It enables us to remember words."

"The most important advantage is its beneficial activities which make retention of words easier."

4.2.5.4. The chance of Repetition: Some of the answers of the participants are below:

"Listening to the pronunciation of words and asking it again and again until I write it correctly is the most important advantage of Quizlet."

"It prevents forgetting words by repeating the words again and again."

"It is very useful in terms of repetition of words and it helps me remember the words I forget."

4.2.5.5. Different Learning Modes: Some of the answers of the participants are:

"It helps to repeat words with different chapters such as cards, writing, tests, so words become more permanent in my mind."

"Quizlet contributes to vocabulary learning with a variety of learning modes and with a suitable mode for everyone."

"Since Quizlet has many options to study, I can see the words many times, so learning is more permanent."

4.2.5.6. Easy Access and Practical Use: Some of the answers of the participants regarding this theme are below:

"I can use Quizlet any time I want. It is very accessible."

"Being easily reachable and studying words in different ways make learning more effective."

4.2.5.7. Fast and Easy Learning: One of the answers of the participants is below:

"It enables us to practice easily and quickly whenever you want."

4.2.6. Interview Question 6: The answers of the participants to the question "What are the disadvantages of using Quizlet?" can be seen below (See Table 18).

Table 18

What are the disadvantages of using Quizlet?

Variables	*f*
No disadvantages	32
More visual modes would be better.	1
Short videos should be included.	1

According to the table above, 32 of the participants stated that there are no disadvantages of using Quizlet while one of the students mentioned that more visual modes would be better and one another student suggested that short videos could be included on Quizlet.

4.2.7. Interview Question 7: This question "Which mode/modes do you like the most on Quizlet? Why?" aimed at learning about the ideas of the participants regarding their favourite mode or modes on Quizlet. The most given responses by the participants are divided into seven categories which can be listed as all modes, live, match, learn, speller, write and test (See Table 19).

Table 19

Which mode/modes do you like the most on Quizlet?

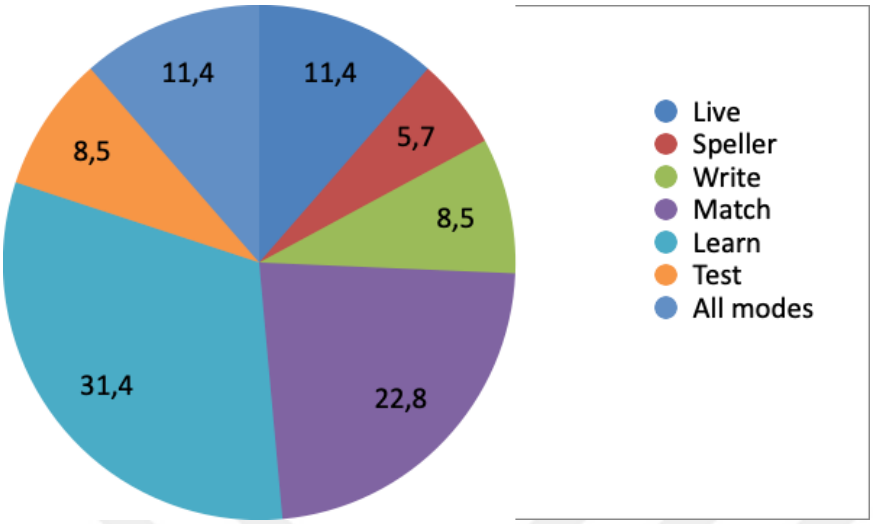
Variables	*f*
All modes	4
Live	4
Match	8
Learn	11
Speller	2
Write	3
Test	3

As it is clear from the table, learn mode was the most popular mode on Quizlet among the participants with 11 responses. Match was the second most preferred mode with 8 students. In addition, 4 students stated that they liked all modes on Quizlet. Live was another popular mode with 4 students. Moreover, three students mentioned write and test modes as their favourite modes. Lastly, speller was the least popular mode with two students.

To make it easier to see the most popular modes among the participants, they are demonstrated with a chart below (See Figure 4).

Figure 4

Which mode/modes do you like the most on Quizlet?



When it comes to the reasons why the participants liked each mode, the participants who chose learn mode stated that it made learning more permanent and enjoyable. As for the participants whose most popular mode was match, they remarked that it was enjoyable, competitive, effective and faster. In addition, four participants who put forward that they liked all modes emphasized that all modes have different functions and are necessary for learning. As for the four participants whose favourite mode is live, they responded that playing a live game with their classmates made it more enjoyable. Moreover, the students who liked the speller mode the most stressed the importance of pronunciation and listening practice. Lastly, the students who liked write and test mode did not mention any explanations for their preference.

While some students only stated their favourite modes with no explanations, some of them gave a brief explanation for their choices which can be listed under each theme below:

4.2.7.1. All Modes: One of the comments of the participants is:

"All modes because they all have a different aim and function."

4.2.7.2. Live: One of the comments of the participants is:

"It is better to play Live together, and it is more enjoyable."

4.2.7.3. Match: Some of the comments of the participants are listed below:

"It is more effective."

"It is more competitive and enjoyable."

"It is very quick and fun."

4.2.7.4. Learn: Some of the comments of the participants are given below:

"It makes learning easier."

"It makes learning words more permanent."

4.2.7.5. Speller: Some of the comments of the participants are:

"It is very enjoyable to listen and write the words."

"It is my favourite because of pronunciation."

4.2.7.6. Test: One of the comments of the participants is:

"I like it because it is like the last revision of the vocabulary set."

CHAPTER 5
DISCUSSION

5.1. Overview

In this study, the main objective is to investigate the effects of using Quizlet in teaching vocabulary as well as in the retention of vocabulary, and this aim is also divided into certain subtopics including teaching vocabulary with collocations and teaching vocabulary with definitions and synonyms. To be able to achieve this end, two experiment groups and a control group participated in the study. The experiment group 1 (EQC) studied the target words on Quizlet with a certain emphasis on collocations whereas the experiment group 2 (EQ) studied the same words on Quizlet with the definitions and the synonyms of the words. On the other hand, the control group (CG) studied the same target words with synonyms and definitions, but by using a traditional method which is using printed worksheets and pencils instead of using Quizlet. The data was collected through a three-stage process which included the pretests, posttests and delayed posttests for the research question 1 and research question 2. For the research question 3, a semi-structured interview was conducted with 34 students who used Quizlet during the research. Although there are three main research questions in this study, there are several sub research questions under each main research questions which are all listed below.

RQ1: How effective is Quizlet for new vocabulary learning?

- Part A: Is Quizlet more effective than traditional methods for new vocabulary learning?
- Part B: How effective is Quizlet with collocations for new vocabulary learning?
- Part C: Is there a significant difference between learning vocabulary on Quizlet with collocations and with synonyms and with definitions?

RQ2: How effective is Quizlet to help the long-term retention of a new vocabulary item?

- Part A: Is Quizlet more effective compared to traditional methods in terms of vocabulary retention?
- Part B: How effective is Quizlet with collocations in terms of vocabulary retention?
- Part C: Is there a significant difference between using Quizlet with collocations and with synonyms and with definitions regarding vocabulary retention?

RQ3: What are the opinions of the students about Quizlet and vocabulary learning?

5.2. Discussion of Research Question 1

The goal of the research question 1 was to investigate the effects of using Quizlet on vocabulary learning, and with this aim three different groups studied the words under

different conditions. That's why there are three sub research questions under the research question 1 and each of them will be discussed one by one which will be followed by an overall discussion of the research question 1.

5.2.1. Discussion of Research Question 1 Part A: This research question aimed to investigate whether using Quizlet is more effective than traditional methods for learning vocabulary. With this aim, experiment group 2 (EQ) studied the target words on Quizlet with their synonyms and definitions while the control group (CG) studied the same words with their synonyms and definitions using printed worksheets and pencils. The results of the posttests which were conducted in Week 8 were analysed to answer this research question. When the posttest means of each group was calculated, the posttest means score of the experiment group 2 was considerably higher (M=11.15) than that of the control group (M= 3.10). Also, the results of the independent samples t-test indicated that there was a significant difference between the posttest means of these two groups in terms of vocabulary learning. In other words, the experiment group 2 (EQ) which used Quizlet learned better than the control group which used printed worksheets, so it may be concluded that the use of an ICT tool, Quizlet may enhance the process of vocabulary learning. This finding has been supported by several studies on vocabulary learning in the literature. For instance, in the study by Waluyo and Bucol (2021) when the students studied vocabulary using Quizlet, they yielded better test results. Likewise, this finding is in agreement with Lander's (2015) findings which showed that Quizlet not only played a positive role in increasing test results of the 485 university students in Japan but also increased their vocabulary acquisition. Similarly, Korlu and Mede (2018) also investigated the effects of Quizlet in vocabulary learning and found a significant improvement in the vocabulary learning of their participants when they used Quizlet. There are also several other studies in the literature which support the idea that Quizlet considerably contributed to vocabulary learning (Dizon, 2016; Nemeth, 2019; Setiawan & Wiedarti, 2020; Dreyer, 2014, Barr, 2016; Sanosi, 2018).

5.2.2. Discussion of Research Question 1 Part B: The aim of this research question was to investigate whether using Quizlet with collocations is more effective or not for learning new vocabulary. To this end, the posttest results of the experiment group 1 (EQC) which studied the target words on Quizlet with collocations was compared with the posttest results of the control group (CG) which studied the same words with their synonyms and definitions using printed worksheets and pencils. When the posttest means of each group was calculated, the posttest means score of the experiment group 1 was substantially higher (M=18.40) than that of the control group (M= 3.10). Also, the results of the independent

samples t-test indicated that there was a significant difference between the posttest means of these two groups in terms of vocabulary learning. That is to say, the experiment group 1 (EQC) which used Quizlet with collocations learned better than the control group. Following conclusions can be drawn from this result. Firstly, the test results suggest that use of Quizlet had a positive effect on learning new words. This finding is in accord with the results of Dreyer's study (2014) which suggested that the more frequently the students used Quizlet to study vocabulary, the more their test results increased. Likewise, this finding further supports the idea of Basoglu and Akdemir (2010) who conducted a study with 60 students studying in a preparatory school in Turkey in that the students who studied vocabulary using a learning program via their mobile phones improved their vocabulary better than the ones studying vocabulary via printed materials.

Additionally, according to the results of the posttests, it may be concluded that using collocations while teaching new words may enhance the process of vocabulary learning as students can contextualise the new words thanks to collocations. This result is consistent with the ideas of Barr (2016) who stated that providing the learners with some collocations of the words is essential and effective while teaching new vocabulary so that learners can be aware of these collocations and learn better.

5.2.3. Discussion of Research Question 1 Part C: This research question aimed to investigate whether there is a significant difference between teaching new words using Quizlet with collocations and teaching new words on Quizlet with synonyms and definitions. With this aim, the posttest results of the experiment group 1 (EQC) which studied the target words on Quizlet with collocations were compared with the posttest results of the experiment group 2 (EQ) which studied the same words on Quizlet with their synonyms and definitions. When the posttest means of each group was calculated, the posttest means score of the experiment group 1 was noticeably higher (M=18.40) than that of the experiment group 2 (EQ) (M= 11.15). Also, the results of the independent samples t-test indicated that there was a significant difference between the posttest means of these two groups in terms of vocabulary learning. These findings suggest that using collocations while teaching new words may help the learners to learn new words more than using synonyms and definitions. This finding suggests that using collocations improves vocabulary learning due to the fact that students can contextualise the new words thanks to the collocations. This result is in accord with a recent study in which the experiment group used an online collocation tool called "Vocabulary Self-Collection Strategy Plus" (VSSPlus) in that the experiment group performed much better than the control group in the vocabulary achievement tests (Khodary, 2017). Taking these findings

into consideration, it can be concluded that collocations create a meaningful learning context for the learners, which may make it easier to learn and recall vocabulary. Ellis (2001) also states that when learners are provided with collocations while they are learning new words, they can learn and remember them better than the other circumstances when the target words are presented with a single word without any collocations due to the fact that collocations are more associative and memorable for the learners.

5.2.4. Overall Discussion of the Research Question 1: The research question 1 aimed to investigate the efficiency of using Quizlet in vocabulary learning. To be able to answer this research question, three independent sample t-tests were conducted comparing the posttest means of the experiment groups and the control group with three combinations. When the results of these tests are evaluated, it is clear that there was a significant difference in all tests. Therefore, it can be concluded that better learning of vocabulary is more likely to be achieved with the help of Quizlet compared to traditional methods. As the test results advocate, it would be beneficial for the teachers of EFL to use technologies, in particular Quizlet, so that they can help their students build up their vocabulary knowledge in a better and easier way. In addition, the results of the tests underlined the facilitating role which the use of collocations played in vocabulary learning. In other words, a conclusion can be drawn from the test results that when new words are presented with collocations, learners may be able to learn them better and more easily. In this study, the vocabulary context was provided with a few sentences by a specific emphasis on the use of collocations; however, teachers of EFL can expand the context with more sentences for each word, which would be better for enhancing vocabulary learning of the students.

5.3. Discussion of Research Question 2

The aim of the research question 2 was to investigate the effects of using Quizlet on vocabulary retention, and with this aim three different groups studied the words under different conditions. That's why there are three sub research questions under the research question 2 and each of them will be discussed one by one at first, and also an overall discussion of the research question 2 will be done afterwards.

5.3.1. Discussion of Research Question 2 Part A: This research question aimed to investigate whether using Quizlet is more effective than traditional methods for the retention of the vocabulary. To be able to measure the retention, delayed posttests were conducted to all three groups taking part in the study in Week 13. Then, for this research question, the means score of posttest results of the experiment group 2 (EQ) which studied the target words on Quizlet with synonyms and definitions was compared with the delayed posttest means score

of the control group (CG) which studied the same words with their synonyms and definitions, but by using printed worksheets and pencils. When the delayed posttest means score of each group was calculated, the delayed posttest means score of the experiment group 2 (EQ) was substantially higher (M=9.80) than that of the control group (CG) (M= 2.65). Also, the results of the independent samples t-test revealed that there was a significant difference between the delayed posttest means of these two groups in terms of the retention of the words in the long run. That is to say, the experiment group 2 (EQ) which used Quizlet recalled the words better than the control group which used printed worksheets. This result suggests that using Quizlet while teaching new words can increase the chance of recalling vocabulary in the long run. This finding seems consistent with the study of Kalecky (2016) which found that the Quizlet group achieved better results in terms of the retention of sports vocabulary in comparison to the notebook group. Likewise, in their study in Thailand, Sangtupim & Mongkolhutthi, (2019) concluded that the high students in their study were satisfied with using Quizlet to learn vocabulary as they stated that it was very effective to learn and remember the words as well as being a faster and easier way of studying words compared to traditional ways. This finding of the present study is also in line with the conclusion Zou, Huang and Xie (2021) reached by reviewing 21 publications on gamification to learn English that through gamifications, online tools contribute to not only short term, but also long-term retention of vocabulary.

5.3.2. Discussion of Research Question 2 Part B: The goal of this research question was to investigate whether using Quizlet with collocations is more effective or not for recalling the words after a certain period of time. To this end, the delayed posttest means score of the experiment group 1 (EQC) which studied the target words on Quizlet with collocations was compared with that of the control group (CG) which studied the same words with their synonyms and definitions using printed worksheets and pencils. When the delayed posttest mean score of each group was calculated, the delayed posttest means score of the experiment group 1 was remarkably higher (M=17.60) than that of the control group (M= 2.65). Also, the results of the independent samples t-test demonstrated that there was a significant difference between the delayed posttest means of these two groups in terms of vocabulary retention. That is to say, the experiment group 1 (EQC) which used Quizlet with collocations remembered the target words after four weeks better than the control group. This finding suggests that the use of Quizlet may have a substantially positive effect on recalling words. This result seems to be consistent with a new study which focused on the effects of Quizlet and Podcast on vocabulary learning and found that Quizlet had a considerable impact

on retention of new vocabulary (Bueno-Alastuey & Nemeth 2020). Also, this result is in agreement with a current study conducted by Çinar and Arı (2019) with 71 high school students in Eskişehir in that they found that Quizlet contributed considerably not only to learning but also to the retention of vocabulary of the students.

5.3.3. Discussion of Research Question 2 Part C: This research question aimed to investigate whether there is a significant difference between teaching new words using Quizlet with collocations and teaching new words on Quizlet with synonyms and definitions in terms of vocabulary retention after four weeks. To be able to answer this research question, the delayed posttest results of the experiment group 1 (EQC) which studied the target words on Quizlet with collocations were compared with the posttest results of the experiment group 2 (EQ) which studied the same words on Quizlet with their synonyms and definitions. When the delayed posttest means score of each group was calculated, the delayed posttest means score of the experiment group 1 was noticeably higher (M=17.60) than that of the experiment group 2 (EQ) (M= 9.80). Also, the results of the independent samples t-test revealed that there was a significant difference between the delayed posttest means of these two groups in terms of recalling the words after four weeks. These findings suggest that using collocations while teaching new words may help the learners to remember new words in the long run more than using synonyms and definitions. It may be concluded that using collocations increases vocabulary retention due to the fact that students can contextualise the new words thanks to the collocations. These results are in line with study results of Ordem and Paker (2016) that discovered that the students in their experiment group who learned vocabulary by paying attention to collocations remembered them better than those in the control group who studied the same vocabulary with their definitions and synonyms. Solhi Andarab (2019) also conducted research with EFL students to compare using collocations with using synonyms on Quizlet to teach new words. In his study, the experiment group which focused on collocations had higher posttest mean scores although there was no significant difference between their scores and those of the control group. In addition, these results of the present study also support the ideas of Krashen and Terrell (1983) who claimed that when vocabulary items are taught in a meaningful way, they have higher retention rates in the long term- memory. That's why learners need to study vocabulary in a context instead of memorising them.

5.3.4. Overall Discussion of the Research Question 2: The main goal of the research question 2 was to investigate whether using Quizlet in vocabulary learning makes a difference in the long term in terms of recalling the vocabulary items. Also, it aimed to seek if there is a significant effect of the use of collocations on the retention of vocabulary items in the long

term or not. The results of the tests comparing the delayed posttest means scores suggested that the use of Quizlet made a significant contribution to recalling the words after four weeks compared to traditional methods in addition to its positive effect on vocabulary learning. More importantly, when Quizlet was used with collocations, the retention rate of the participants was the highest in comparison to the other two groups, which may indicate that when the vocabulary items are taught by means of Quizlet as well as with collocations, the learners are less likely to forget the vocabulary items in the long run as collocations provide a certain context to them.

5.4. Discussion of Research Question 3

In order to answer research question 3, a semi-structured interview was conducted with 34 students who used Quizlet throughout the research. The main objective of carrying out this interview was to investigate the perceptions of the participants about Quizlet and vocabulary learning. The interview consisted of seven questions which will be discussed one by one in this chapter.

5.4.1. Discussion of the Interview Question 1: This interview question aimed to investigate how regularly the participants used Quizlet during the research not only in the classroom but also at home as an extra practice. According to the results shown in Table 12, a high majority of the participants, 30 out of 34, stated that they used Quizlet regularly, which can be interpreted that Quizlet motivated them to study vocabulary.

5.4.2. Discussion of the Interview Question 2: The goal of this interview question was to seek the amount of time each student spent weekly to study the vocabulary sets on Quizlet. The results in Table 13 show that while 18 of the participants spent 20-25 minutes studying on Quizlet, 7 of them studied on Quizlet 25-35 minutes weekly and lastly 9 participants mentioned that they studied more than 35 minutes on Quizlet each week. These results indicate that almost half of the students also studied on Quizlet outside their classroom, which can be associated with the increasing motivation aspect of Quizlet to study vocabulary. These results are in line with the findings of the study by Setiawan & Wiedarti (2020) who discovered that Quizlet increases the eagerness of the students to study independently at home and motivates them to study the target words more, and so increases their vocabulary acquisition.

5.4.3. Discussion of the Interview Question 3: This interview question aimed at seeking the perceptions of the participants with regard to the use of online tools in improving their vocabulary. According to the responses of the students, all of the students agreed that online tools and applications are helpful for them while learning vocabulary, which suggests that all

students are quite familiar with online tools and aware of the benefits of them for vocabulary learning. This result may be related to the age of participants who are members of Z generation. Also, this result matches those observed in earlier studies. For instance, Ozkan and Solmaz (2015) found that due to the rapid improvements in mobile devices technology, Z generation enjoys using their smartphones for everything and anytime they wish. Likewise, Alvarado, Coelho and Dougherty (2016) also suggest that as the students of Z generation are actively involved in several kinds of technologies since they can access any applications on their smartphones, teachers should improve their technology skills to be able to keep up with their students in the classroom. Similarly, Wolff (2016) also found that more than 90 per cent of the students in his study reported to enjoy studying English using applications and smartphones.

As for the second part of the question about how online tools help participants to improve their vocabulary, the participants had a variety of ideas and comments, which were categorised under five main themes, and were listed as easy access, enjoyable learning, practical use, effective learning and finally visual and auditory content in Table 15. The results suggest that two themes which participants put forward as the most significant reasons why they think online tools help them to enhance their vocabulary knowledge were effective learning and practical use. These ideas of the students are in agreement with several earlier studies in the literature. To illustrate, Wolff (2016) found similar results in terms of the perception of students concerning the efficiency of Quizlet. In his study, 95.8 per cent of the students chose agree or strongly agree options when they were asked how much they agreed with the idea that Quizlet was useful for them to memorise technical words, which means that a high majority of the students rated Quizlet as a very effective tool to learn new words. Similarly, a very close percentage of the students also said that they could get better results on tests thanks to Quizlet.

In addition, visual and auditory content was the third most popular reason suggested by the participants. These responses of the students support several earlier studies which found that when pictures are used to teach vocabulary, learners are more likely to recall them (Samur, 2012; Plass & Jones, 2005).

Moreover, almost one fifth of the participants put forward easy access as the advantage of online tools while some participants mentioned enjoyable learning. These results are in line with the ideas of Barr (2016) who stated that one of the main advantages of Quizlet is its easy accessibility thanks to its practical website and application so that learners can use it either on their computers or via their mobile phones. The responses of the participants in the study of

Sangtupim and Mongkolhutthi (2019) also emphasized this easy accessibility of Quizlet as the most important advantage of the application. In addition, these ideas of the students are in accord with several earlier studies indicating that digital flashcards are more effective and better than printed ones in that they are more accessible and flexible (Hsu, 2013), that's why students have the opportunity to study vocabulary using digital flashcards by means of MALL concept wherever and whenever they want (Crompton, Olszewski, & Bielefeldt, 2015).

5.4.4. Discussion of the Interview Question 4: The objective of this interview question was to seek whether participants enjoyed studying new words on Quizlet or not. The responses of the participants to this question in Table 16 showed that all of the students had positive thoughts about Quizlet use for vocabulary learning. This result supports the several recent studies on vocabulary learning with regard to satisfaction of students with Quizlet. For instance, Sun and Hsieh (2018) found that Quizlet had a direct positive effect on increasing the motivation of students. Similarly, the results of Wolff' study (2016) also indicated a high satisfaction rate of the students with Quizlet and high willingness to play it more frequently. In another study by Anjaniputra and Salsabila (2018), the students reported that thanks to different modes on Quizlet, learning vocabulary turned into a fun activity.

5.4.5. Discussion of the Interview Question 5: With this interview question, the ideas of the participants regarding the advantages of using Quizlet to learn new words and remember them were sought. The ideas and comments of the students were divided under seven main advantages: visual aids, enjoyable learning, increasing the retention of words, the chance of repetition, different learning modes, easy access and practical use, and finally fast and easy learning. The results suggest that more than half of the students stated that Quizlet increased the retention of words which has been supported with several studies above in research question 2 which is about retention. The interview results show that another most popular advantage of using Quizlet were the related to the chance of repetition and different learning modes, both of which were suggested by 12 students. These ideas of the students are in line with recent studies. To illustrate, Samur (2012) also found that when a variety of user-based choices stimulate the learners in several ways including auditory, visual, and kinaesthetic ones, learners have the opportunity to use multiple senses to learn and master the words they study by means of repeated exposure to them many times. Barr (2016) also found that a wide variety of study and game modes is another advantage of Quizlet which increases the interaction of the learners while they are studying vocabulary. This result is also in line with several earlier studies which suggest that learners need to be exposed to the language frequently so as to learn new words, which makes repetition an essential requirement of

vocabulary learning (Nation, 2001; Schmitt, 2008; Grillo &Dieker, 2013; McKeown&Beck, 2014)

Moreover, the results of the interview question suggested that the other advantages of Quizlet the participants mentioned were the use of visual aids, fast and easy learning, enjoyable learning, and finally easy access and practical use. These results are in agreement with the findings of Waluyo and Bucol (2021) which underline the easy accessibility and practical use of Quizlet by pointing out different ways the students can use to reach Quizlet vocabulary sets including URL link and QR code. Likewise, Ashcroft and Imrie (2014) also found that compared to paper flashcards, Quizlet has been regarded as easier and more practical to be used among learners.

5.4.6. Discussion of the Interview Question 6: The objective of this interview question was to learn about the ideas of participants related to the disadvantages of using Quizlet to study vocabulary. The responses of the participants show that a high majority of them, 32 out of 34, stated that there are no disadvantages of using Quizlet while a participant suggested having more visuals would be better and the other one mentioned that Quizlet would be better with some short videos. These two comments of the students may be interpreted as suggestions more than the disadvantages of Quizlet.

5.4.7. Discussion of the Interview Question 7: The main objective of this final interview question was to investigate the ideas of the participants with regard to their favourite mode or modes on Quizlet. The responses of the participants were categorised into seven groups which can be listed as all modes, live, match, learn, speller, write and test.

As the results in Table 10 clearly show, learn mode was the most popular mode on Quizlet among the participants with 11 responses and the participants mentioned that they chose learn mode since it made learning more permanent, and it is enjoyable. Match was the second most popular mode with 8 participants. These participants stated that they enjoyed match mode because this mode is enjoyable, competitive, effective and faster. These ideas of the students are in line with the study of Sangtupim and Mongkolhutthi (2019) in that they also found that match mode was the most popular mode among their participants who stated that they enjoyed it as it is very fast and effective. In addition, some students emphasised that they enjoyed all modes on Quizlet because all modes have different functions on Quizlet and are necessary for learning. These results are in agreement with the ideas of Samur (2012) who found that Quizlet has the potential to stimulate users with a variety of options, and as result of this, the users can master the words thanks to repeated exposure to them with many different modes.

Additionally, the results of the interview question indicated that live was another popular mode among participants who stated that playing a live game with their classmates made it more enjoyable. These positive responses of the students towards Quizlet live mode are in line with the study of Wolff (2016). In his study, he found that more than 84 per cent of the students said that they were quite satisfied with Quizlet live mode, rating it with the highest scores. The underlying reason why live mode is one of the most popular modes may be related to its competitive nature which makes students very enthusiastic to play the game in the classroom. In the same study by Wolff (2016), almost 95 per cent of the students responded that their learning atmosphere turned into a more exciting one thanks to Quizlet live.

Moreover, according to the results of the interview, some participants who stressed the importance of pronunciation and listening practice while learning new words stated that their favourite Quizlet modes were write, speller and test modes. There are several studies in line with this finding which found that students can improve their spelling skills thanks to speller mode on Quizlet (Vargas 2011). Likewise, Kalecky (2016) also discovered that Quizlet was very effective in that it decreased spelling mistakes to a great extent in his study thanks to the speller mode and the requirement to write the words several times on Quizlet.

5.4.8. Overall Discussion of the Research Question 3: When the responses of the participants to the interview questions are taken into account, it is clear that the participants are all happy with studying Quizlet and its several modes. It may also be concluded that the participants feel that Quizlet helps them to learn and recall vocabulary. These results further support several earlier studies in literature. For instance, in the study by Dizon (2016) with Japanese students learning English, the students stated that using Quizlet to learn L2 vocabulary is effective and motivating. Likewise, Lander (2015) also concluded that in addition to enhancing vocabulary learning, Quizlet contributed to changing the attitudes of the students into a more positive one in terms of language learning. Similarly, the study by Basoglu and Akdemir (2010) also found that the students had positive feelings about studying vocabulary using their mobile phones, which they perceived as more enjoyable and effective in comparison to using traditional printed materials. These results of the interview on the perception of the students regarding Quizlet are in line with several recent studies indicating that students regard Quizlet not only practical and enjoyable, but also effective in terms of vocabulary learning (Kalecky, 2016; Dizon, 2016; Barr, 2016, Korlu, 2017).

CHAPTER 6
CONCLUSION

To start with the purposes of the study, this study has aimed to examine the impact of Quizlet on vocabulary learning and retention of A1 level university students studying in the preparatory school in a state university in İstanbul during the fall semester of 2021-2022 Academic Year. In addition, this study has investigated the role of teaching new words with their collocations on vocabulary learning and retention of the participants. Eventually, another aim of this study has been to learn about the ideas and comments of the participants using Quizlet in terms of vocabulary learning and retention through a survey investigating their perceptions regarding their experience with Quizlet and their ideas about each mode of Quizlet.

On the other hand, when the results of the posttests were analysed, it was concluded that the participants who used Quizlet during the research had significantly better results compared to the ones in the control group who studied the new words using traditional methods, printed worksheets, which indicated that Quizlet contributed to vocabulary learning of the students considerably. Likewise, the results of the posttests also revealed that the participants using Quizlet during the research had significantly higher scores than those of the participants in the control group, which meant that using Quizlet played a substantially positive role on vocabulary retention of the participants. Additionally, the participants who studied the new words with their collocations in the experiment group 1 had significantly better scores both in posttests and delayed posttests compared to the participants who studied the new words with their synonyms and definitions, which indicated that the use of collocations contributed to not only vocabulary learning but also retention of vocabulary. Furthermore, the results of posttests and delayed posttests of experiment group 1 and those of the experiment group 2 indicated that the scores of the participants in experiment group 1 who studied the target words on Quizlet with their collocations were significantly higher than the scores of the participants in the experiment group 2 who studied the target words on Quizlet with their synonyms and definitions. This significant difference revealed that when Quizlet was used as a tool in both groups, the use of collocations contributed to vocabulary learning and retention considerably more in comparison to the use of synonyms and definitions. When it comes to the third research question, the results of the interview indicated that the participants had a quite positive perception with regard to using Quizlet to learn new words and they stated that studying new words on Quizlet is effective, enjoyable and practical.

More importantly, although there are a number of studies examining the role of Quizlet on vocabulary learning, this study is one of the few studies, conducted with university students in Turkey, to investigate not only the impact of Quizlet on vocabulary learning and retention, but also the role of using collocations on Quizlet in terms of vocabulary learning and retention. Also, this study is one of the first studies to compare the use of collocations with the use of synonyms and definitions on Quizlet in terms of vocabulary learning and retention of university students in Turkey.

As for the limitations of the study, the current study was limited by the level of participants. All of the participants were A1 level students. More studies need to be conducted with the participants from different proficiency levels of English. Moreover, the practice period of the present study was limited to three weeks, that's why it would be a good idea to carry out a longitudinal study to investigate the research questions more comprehensively. Finally, the number of the participants was limited to 60 due to low attendance of the participants to preparatory classes because of the COVID-19 pandemic conditions, thus, further research needs to be conducted with a larger number of students.

The findings of this study may have a number of implications not only for the researchers working in the field but also for the English instructors working at universities and in other institutions. The researchers are suggested to investigate the impact and role of using Quizlet with collocations with higher numbers of participants and in longer periods of time. As for the English instructors, they are suggested to take the advantages of using Quizlet and using collocations to teach vocabulary into consideration in their classes so that they can not only improve the vocabulary learning and retention of their students but also increase the motivation of their students through using Quizlet.

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Appendix

Appendix 1: Approval Form of the Istanbul University Ethics Committee

Tarih ve Sayı: 13.01.2022-703356

T.C.
İSTANBUL ÜNİVERSİTESİ REKTÖRLÜĞÜ
Sosyal ve Beşeri Bilimler Araştırmaları Etik Kurulu Başkanlığı

Sayı :E-35980450-663.05-703356
Konu :Filiz TÜRKMEN

Sayın Öğr. Gör. Filiz TÜRKMEN

İlgi : 23.11.2021 tarihli, 622591 sayılı yazı

Sorumlu araştırıcılığını üstlendiğiniz 2021/260 dosya numaralı "Yabancı Dil Olarak İngilizce Öğrenen Sınıflarda Kelimeleri Eşdizimleriyle Oyunlaştırma Yöntemiyle Öğrenmek" başlıklı çalışma, Kurulumuzun 06.12.2021 tarih ve 11 sayılı toplantısında görüşülerek etik yönden uygun bulunmuş olup, karar ekte sunulmuştur.

Bilgilerinizi rica ederim.

Prof. Dr. N. Tolga SARUÇ
Başkan

Ek:Sosyal ve Beşeri Bilimler Araştırmaları Etik Kurulu Kararı

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Belge Doğrulama Kodu :BSAPRUS4JZ Pin Kodu :63503 Belge Takip Adresi : https://www.turkiye.gov.tr/istanbul-universitesi-ebys

İstanbul Üniversitesi Merkez Kampüsü
34452 Beyazıt/Fatih-İstanbul
Tel : 0212 440 20 89 Faks : 0212 440 20 88
e-posta : sosyalbilimleretikkurul@istanbul.edu.tr Elektronik Ağ : www.istanbul.edu.tr
Kep Adresi: istanbuluniversitesi@hs01.kep.tr

Bilgi için : Süleyman ARIK
Dahili : 10689

Bu belge 5070 sayılı Elektronik İmza Kanununun 5. Maddesi gereğince güvenli elektronik imza ile imzalanmıştır.

Tarih ve Sayı: 30.12.2021-674216

T.C.
İSTANBUL ÜNİVERSİTESİ
SOSYAL VE BEŞERİ BİLİMLER
ARAŞTIRMALARI ETİK KURULU BAŞKANLIĞI

İlgili makama,

İstanbul Üniversitesi, Yabancı Diller Yüksekokulu Öğretim Görevilisi **Filiz TÜRKMEN** "Yabancı Dil Olarak İngilizce Öğrenen Sınıflarda Kelimeleri Eşdizimleriyle Oyunlaştırma Yöntemiyle Öğrenmek" başlıklı, **2021/260** dosya numaralı 25.11.2021 tarih ve **622591** sayılı başvurusu ile İ.Ü. Sosyal ve Beşeri Bilimler Araştırmaları Etik Kurulu'na başvurmuştur. 06.12.2021 tarihinde gerçekleşen inceleme sonucunda, adı geçen çalışmada etik açıdan bir sorun olmadığına oybirliği ile karar verilmiştir. Gereğini bilgilerinize saygılarımızla sunarız.

Unvanı / Adı / Soyadı	Kurumu	Araştırma ile ilişki	Karar	İmza
Prof. Dr. Naci Tolga SARUÇ (Başkan)	İktisat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Doç. Dr. Çiğdem Börke TUNALI (Başkan Yardımcısı)	İktisat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Prof. Dr. Eray YURTSEVEN (Başkan Yardımcısı)	İstanbul Tıp Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Prof. Dr. Aydın TOPALOĞLU	İlahiyat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Prof. Dr. Yasemin IŞIKTAÇ	Hukuk Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Prof. Dr. Selahattin KARABINAR	İktisat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Prof. Dr. Seyhan NİŞEL	İşletme Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Prof. Dr. Mustafa Hamdi SAYAR	Edebiyat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Prof. Dr. Selim YAZICI	Siyasal Bilgiler Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Prof. Dr. Rasim İlker GÖKBULUT	Ulaştırma ve Lojistik Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Prof. Dr. Enes KABAKCI	Edebiyat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Prof. Dr. Haluk ZÜLFİKAR	İktisat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Doç. Dr. Hanife Özlem SERTEL BERK	Edebiyat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Doç. Dr. Şerife Sema KARAKELLE	Edebiyat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Dr. Öğr. Üyesi Göklem TEKDEMİR YURTDAŞ	Edebiyat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Dr. Öğr. Üyesi Bengi PİRİM DÜŞGÖR	Edebiyat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Dr. Öğr. Üyesi Ayşe Elif YAVUZ SEVER	Edebiyat Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	
Dr. Öğr. Üyesi Mehmet Güven GÜNVER	İstanbul Tıp Fakültesi	E O H O	O Onay O Katılmadı O Ret O M.Katılmadı	

Appendix 2: Consent Form for the Control Group

T.C. İstanbul Üniversitesi

Sosyal ve Beşeri Bilimler Araştırmaları Etik Kurulu
BİLGİLENDİRİLMİŞ GÖNÜLLÜ ONAM FORMU

Sizi İstanbul Üniversitesi Yabancı Diller Yüksekokulu'nda öğretim görevlisi olarak görev yapan Filiz Türkmen'in Uludağ Üniversitesi Eğitim Bilimleri alanında devam etmekte olan yüksek lisans tez çalışması "Yabancı Dil Olarak İngilizce Öğrenen Sınıflarda Kelimeleri Eşdizimleriyle Oyunlaştırma Yöntemiyle Öğrenmek" başlıklı araştırmaya davet ediyoruz. Bu araştırmanın amacı oyunlaştırma yönteminin ve kelimeleri eşdizimleriyle öğretmenin başlangıç seviyesinde İngilizce öğrenenler üzerinde olumlu bir etkisinin olup olmadığını bulmaktır. Araştırmada sizden tahminen 3 hafta boyunca her hafta yaklaşık 20 dakika ayırmanız istenmektedir. Her oturumda sizden diğer katılımcılarla birlikte iki tane kelime çalışması yapmanız istenecektir. Çalışmadan önce bir adet çalışmadan sonra da iki adet minik değerlendirme testi çözmeniz istenecektir. Bu sınavlar hiçbir koşulda ders notunuza etki etmez ve yalnızca bu çalışma için kullanılacaktır. Araştırmaya sizin dışınızda 159 kişi katılacaktır. Bu çalışmaya katılmak tamamen **gönüllülük** esasına dayanmaktadır. Çalışmanın amacına ulaşması için sizden beklenen, kimsenin baskısı veya telkini altında olmadan, size en uygun gelen cevapları içtenlikle verecek şekilde cevaplamanızdır. Bu formu okuyup onaylamanız, araştırmaya katılmayı kabul ettiğiniz anlamına gelecektir. Ancak, çalışmaya katılmama veya katıldıktan sonra herhangi bir anda çalışmayı bırakma hakkına da sahipsiniz. Bu çalışmadan elde edilecek bilgiler tamamen araştırma amacı ile kullanılacak olup kişisel bilgileriniz gizli tutulacaktır; ancak verileriniz yayın amacı ile kullanılabilir. İletişim bilgileriniz ise sadece izninize bağlı olarak ve farklı araştırmacıların sizinle iletişime geçebilmesi için "ortak katılımcı havuzuna" aktarılabilir. Verilerin gizliliği şifreli bir bilgisayar kullanılarak sağlanacaktır. Ayrıca çalışmaya katılan katılımcı isimleri kod numaraları ile değiştirilecektir. Basılı belgeler çalışmayı takip eden 3 yıl süresince kilitli bir dolapta muhafaza edilecektir. Bu süre sonunda tüm dijital veriler kopyaları ile birlikte kalıcı olarak silinecek, basılı belgeler ise kâğıt öğütücü kullanılarak imha edilecektir. Eğer araştırmanın amacı ile ilgili verilen bu bilgiler dışında şimdi veya sonra daha fazla bilgiye ihtiyaç duyarsanız araştırmacıya şimdi sorabilir veya …. e-posta adresi ve…. numaralı telefondan ulaşabilirsiniz. Araştırma tamamlandığında genel/size özel sonuçların sizinle paylaşılmasını istiyorsanız lütfen araştırmacıya iletiniz.

Yukarıda yer alan ve araştırmadan önce katılımcıya verilmesi gereken bilgileri okudum ve katılmam istenen çalışmanın kapsamını ve amacını, gönüllü olarak üzerime düşen sorumlulukları anladım. Çalışma hakkında yazılı ve sözlü açıklama aşağıda adı belirtilen araştırmacı/araştırmacılar tarafından yapıldı. Bana, çalışmanın muhtemel riskleri ve faydaları sözlü olarak da anlatıldı. Kişisel bilgilerimin özenle korunacağı konusunda yeterli güven verildi.

Bu koşullarda söz konusu araştırmaya kendi isteğimle, hiçbir baskı ve telkin olmaksızın katılmayı kabul ediyorum.

Katılımcının [2]:

Adı-Soyadı:.....

İmzası: İletişim Bilgileri: e-posta: Telefon:

İletişim bilgilerimin diğer araştırmacıların benimle iletişime geçebilmesi için "ortak araştırma havuzuna" aktarılmasını; □ kabul ediyorum □ kabul etmiyorum (lütfen uygun seçeneği işaretleyiniz)

Araştırmacının

Adı-Soyadı:.....

İmzası:

Appendix 3: Consent Form for the Experiment Groups

T.C. İstanbul Üniversitesi
Sosyal ve Beşeri Bilimler Araştırmaları Etik Kurulu
BİLGİLENDİRİLMİŞ GÖNÜLLÜ ONAM FORMU

Sizi İstanbul Üniversitesi Yabancı Diller Yüksekokulu'nda öğretim görevlisi olarak görev yapan Filiz Türkmen'in Uludağ Üniversitesi Eğitim Bilimleri alanında devam etmekte olan yüksek lisans tez çalışması "Yabancı Dil Olarak İngilizce Öğrenen Sınıflarda Kelimeleri Eşdizimleriyle Oyunlaştırma Yöntemiyle Öğrenmek" başlıklı araştırmaya davet ediyoruz. Bu araştırmanın amacı oyunlaştırma yönteminin ve eşdizimleriyle öğretmenin başlangıç seviyesinde İngilizce öğrenenler üzerinde olumlu bir etkisinin olup olmadığını bulmaktır. Araştırmada sizden tahminen 3 hafta boyunca her hafta yaklaşık 20 dakika ayırmanız istenmektedir. Her oturumda sizden diğer katılımcılarla birlikte iki tane kelime çalışması yapmanız istenecektir. Çalışmadan önce bir adet çalışmadan sonra da iki adet minik değerlendirme testi çözmeniz ve son olarak çalışmayla ilgili görüşlerinizi öğrenmek amacıyla kısa bir anket çalışması yapılacaktır. Bu sınavlar hiçbir koşulda ders notunuza etki etmez ve yalnızca bu çalışma için kullanılacaktır. Araştırmaya sizin dışınızda 159 kişi katılacaktır. Bu çalışmaya katılmak tamamen **gönüllülük** esasına dayanmaktadır. Çalışmanın amacına ulaşması için sizden beklenen, kimsenin baskısı veya telkini altında olmadan, size en uygun gelen cevapları içtenlikle verecek şekilde cevaplamanızdır. Bu formu okuyup onaylamanız, araştırmaya katılmayı kabul ettiğiniz anlamına gelecektir. Ancak, çalışmaya katılmama veya katıldıktan sonra herhangi bir anda çalışmayı bırakma hakkına da sahipsiniz. Bu çalışmadan elde edilecek bilgiler tamamen araştırma amacı ile kullanılacak olup kişisel bilgileriniz gizli tutulacaktır; ancak verileriniz yayın amacı ile kullanılabilir. İletişim bilgileriniz ise sadece izninize bağlı olarak ve farklı araştırmacıların sizinle iletişime geçebilmesi için "ortak katılımcı havuzuna" aktarılabilir. Verilerin gizliliği şifreli bir bilgisayar kullanılarak sağlanacaktır. Ayrıca çalışmaya katılan katılımcı isimleri kod numaraları ile değiştirilecektir. Basılı belgeler çalışmayı takip eden 3 yıl süresince kilitli bir dolapta muhafaza edilecektir. Bu süre sonunda tüm dijital veriler kopyaları ile birlikte kalıcı olarak silinecek, basılı belgeler ise kâğıt öğütücü kullanılarak imha edilecektir. Eğer araştırmanın amacı ile ilgili verilen bu bilgiler dışında şimdi veya sonra daha fazla bilgiye ihtiyaç duyarsanız araştırmacıya şimdi sorabilir veya … e-posta adresi ve … numaralı telefondan ulaşabilirsiniz. Araştırma tamamlandığında genel/size özel sonuçların sizinle paylaşılmasını istiyorsanız lütfen araştırmacıya iletiniz.

Yukarıda yer alan ve araştırmadan önce katılımcıya verilmesi gereken bilgileri okudum ve katılmam istenen çalışmanın kapsamını ve amacını, gönüllü olarak üzerime düşen sorumlulukları anladım. Çalışma hakkında yazılı ve sözlü açıklama aşağıda adı belirtilen araştırmacı/araştırmacılar tarafından yapıldı. Bana, çalışmanın muhtemel riskleri ve faydaları sözlü olarak da anlatıldı. Kişisel bilgilerimin özenle korunacağı konusunda yeterli güven verildi.

Bu koşullarda söz konusu araştırmaya kendi isteğimle, hiçbir baskı ve telkin olmaksızın katılmayı kabul ediyorum.

Katılımcının [2]:

Adı-Soyadı:.....

İmzası: İletişim Bilgileri: e-posta: Telefon:

İletişim bilgilerimin diğer araştırmacıların benimle iletişime geçebilmesi için "ortak araştırma havuzuna" aktarılmasını; □ kabul ediyorum □ kabul etmiyorum (lütfen uygun seçeneği işaretleyiniz)

Araştırmacının

Adı-Soyadı:.....

İmzası:

Appendix 4: Practice Material for the Control Group

PRACTICE MATERIAL / WEEK 1

Exercise 1: Match the words in column A with their synonyms or definitions in Column B.

1. priority (n) _____	A. diversity / a number of different kinds or types
2. attentive (adj) ____	B. proof / a fact or a piece of information that shows something exists or is true
3. outskirts (n) ____	C. alert and watchful; considerate; thoughtful
4. sting (n) ____	D. painful / feeling uncomfortable because of an injury or an infection
5. sore (adj) ____	E. to experience something bad
6. variety (n) ____	F. first concern / a thing that is regarded as more important than another
7. suffer (v) ____	G. suburbia / a part of the city far removed from the centre
8. evidence (n) ____	H. (of an insect or plant) to touch your skin or make a very small hole in it so that you feel a sharp pain

Exercise 2: Fill in the gaps with the words in the box.

attentive	variety	outskirt	suffer
sore	priority	evidence	sting

1. You can reach a _____ of products on our shopping websites.

2. Max and her brother _____ from asthma and pollen allergy especially in spring.

3. Sam has got a _____ throat and runny nose.

4. You should put some ice on your finger when you get a bee _____.

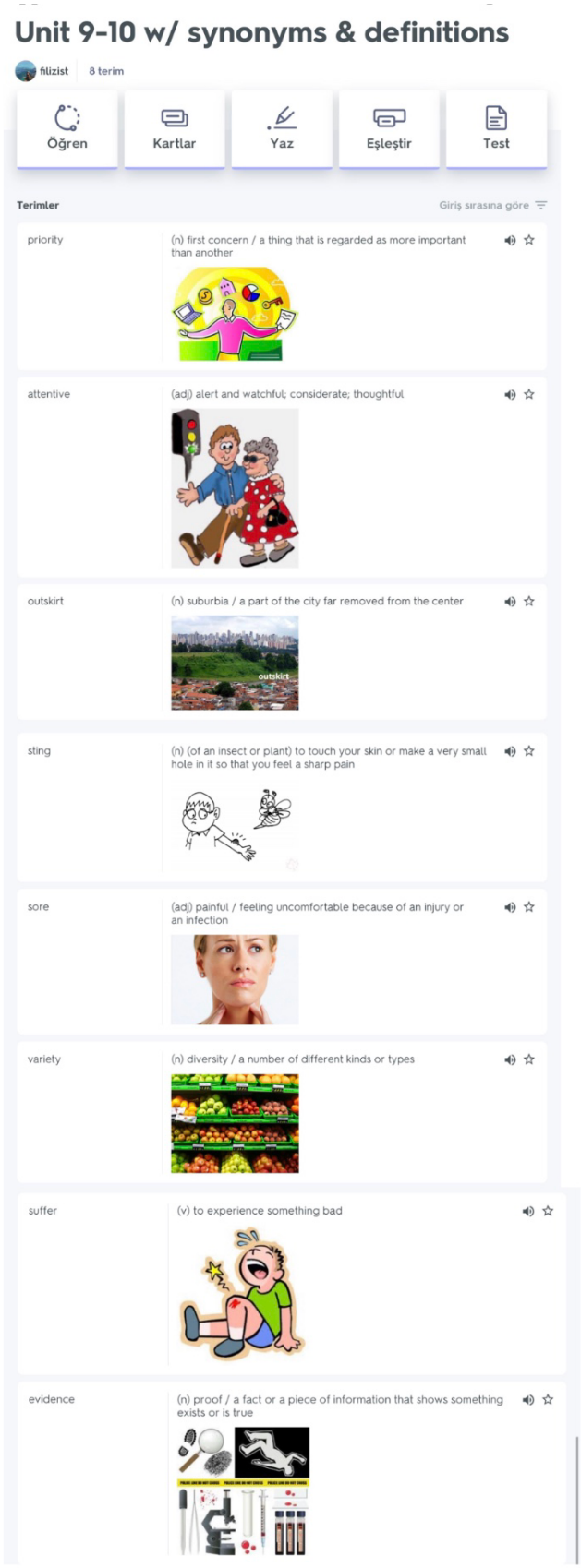
5. Mothers should always be _____ to what their babies are doing.

6. The managers of the company emphasized that they give more _____ to the well-being of their employees.

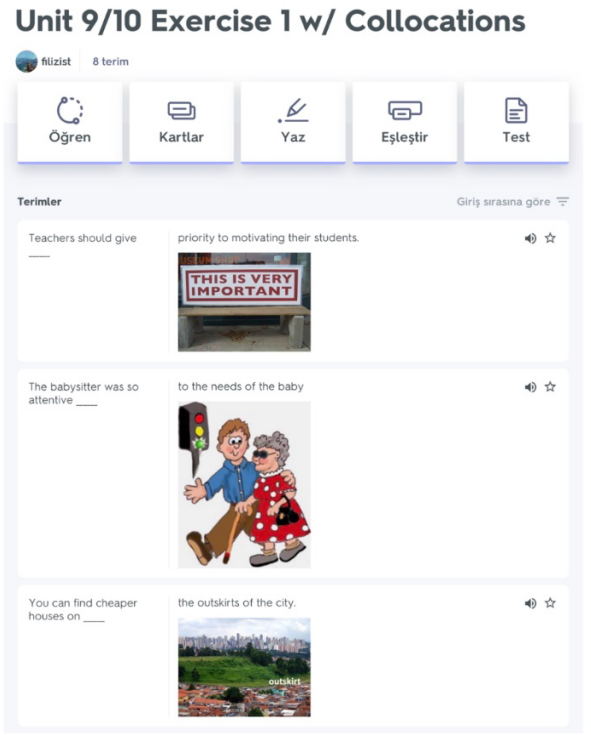
7. Is there any scientific _____ that a person's character is reflected in their handwriting?

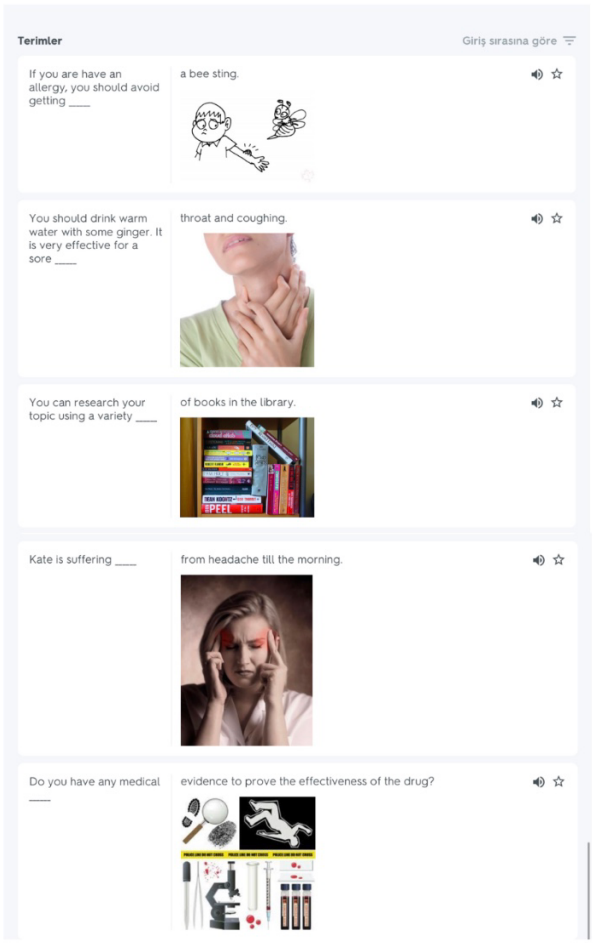
8. There are a number of factories on the _____ of Istanbul.

Appendix 5: Practice Material on Quizlet for the Experiment Group 2



Appendix 6: Practice Material on Quizlet for the Experiment Group 1





Appendix 7: Pretest

Name & Surname:

Class:

PRETEST

Write the Turkish meanings, synonyms or definitions of the words and make a sentence using them.

	Target Words	Turkish Meaning	Synonyms & Definitions	Make a sentence
1.	appropriate (adj)			
2.	owe (v)			
3.	lend (v)			
4.	obsessed (adj)			
5.	rely (v)			
6.	enthusiastic (adj)			
7.	apply (v)			
8.	borrow (v)			
9.	priority (n)			
10.	attentive (adj)			
11.	outskirt (n)			
12.	sting (n)			
13.	sore (adj)			
14.	variety (n)			
15.	suffer (v)			
16.	evidence (n)			
17.	satisfaction (n)			
18.	benefit (v)			
19.	purification (n)			
20.	magnifying (adj)			
21.	deserted (adj)			
22.	reasonable (adj)			
23.	invest (v)			
24.	feature (n)			

Appendix 8: Interview Questions

Part I

1. Did you use Quizlet regularly during the research? Yes / No

2. How much time did you study on Quizlet each week?

15-20 minutes / 20-30 minutes / more than 30 minutes

Part II

1. Do you think online tools and applications help to improve your vocabulary? How?

2. Do you enjoy studying new vocabulary on Quizlet?

3. What are the advantages of using Quizlet in terms of learning and remembering new words?

4. What are the disadvantages of using Quizlet?

5. Which mode/modes do you like the most on Quizlet? Why?

CURRICULUM VITAE

Personal Information

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Place of Birth:

Foreign Languages: English, French

Education

High School: Fethiye High School

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