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DEPARTMENT OF FOREIGN LANGUAGE EDUCATION

**THE EFFECTS OF QUIZLET ON STUDENTS' AND EFL TEACHERS'
PERCEPTIONS ON VOCABULARY LEARNING / TEACHING PROCESS**

FATİH TOY

Advisor: Assist. Prof. Dr. Kağan BÜYÜKKARCI

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CERTIFICATE OF COMMITTEE APPROVAL

We certify that this thesis under the title of “**The Effects of Quizlet on Students’ and EFL Teachers’ Perceptions on Vocabulary Learning / Teaching Process**” prepared by **Fatih TOY** is satisfactory for the award of the degree of Master of Arts in the Department of English Language Teaching.

Advisor

Assist. Prof. Dr. Kağan BÜYÜKKARCI
Süleyman Demirel University

Committee Member

Assoc. Prof. Dr. Nazlı BAYKAL
Süleyman Demirel University

Committee Member

Assist. Prof. Dr. Ali KARAKAŞ
Mehmet Akif Ersoy University

Director

Prof. Dr. Mehmet KÖÇER

COMMITMENT

I declare that this thesis has been written by taking ethical rules into consideration and by giving all the references cited from the field by referring them in the thesis.



FATİH TOY

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ÖZET

QUIZLET'İN ÖĞRENCİLERİN VE İNGİLİZCE ÖĞRETMENLERİNİN ALGILARI VE KELİME ÖĞRENME / ÖĞRETME SÜRECİNDEKİ ETKİLERİ

Fatih TOY

**Yüksek Lisans Tezi, Süleyman Demirel Üniversitesi, Eğitim Bilimleri Enstitüsü,
Yabancı Diller Eğitimi Anabilim Dalı**

Danışman: Dr. Öğretim Üyesi. Kağan BÜYÜKKARCI

2019, 98 sayfa

Bu araştırmanın amacı FATİH Projesi ve Bilgisayar Destekli Dil Öğrenimi çerçevesinde ve ‘eTwinning İngilizce Olimpiyatları’ projesinde yer alan Quizlet adlı web aracının 8.sınıf öğrencilerinin İngilizce kelime öğrenimine etkisini incelemek ve özellikle bu doğrultuda kelime öğreniminde Quizlet kullanımına dair algılarını araştırmak ve motivasyonlarına etkilerini ortaya çıkarmaktır. Nitel ve nicel desenlerden oluşan karma araştırma yöntemini kullanan bu çalışmada Türkiye'nin farklı bölgelerinden 200 tane 8.sınıf öğrencisi ve 24 öğretmen yer almıştır. 12 öğretmen ve 100 öğrenciden oluşan kontrol grubundaki öğrenciler öğretmen merkezli klasik kelime öğrenim yöntemleriyle çalışırken, 12 öğretmen ve 100 öğrenciden oluşan deney grubundaki öğrenciler kelime öğrenirken yoğun olarak Quizlet aracını kullanmışlardır. 2018 Nisan ayında başlayan ve Mayıs ayının sonuna kadar devam eden 8 haftalık süreçte her 2 gruptaki öğrencilere ön başarı testi ayrıca son test olarak da uygulanmıştır. Ayrıca deney grubundaki öğrencilere ve 10 öğretmene algı anketleri uygulanmıştır. 8 öğretmenle de açık uçlu sorulardan oluşan görüşmeler yapılmıştır. Son test sonuçları Bağımsız Değişken T-Testi ile analiz edilmiştir ve 2 grup arasında kelime öğrenme başarısı özellikle kelime tanınması yönünden anlamlı bir fark ortaya çıkmıştır. Algı anketleri ve görüşmelerin sonuçlarına göre öğrencilerin ve öğretmenlerin Quizlet kullanımı özelinde bilgisayar destekli uygulamaların kelime öğreniminde kullanılmasına yönelik olumlu algılar geliştirdikleri de ortaya çıkarılmıştır.

Anahtar Kelimeler: FATİH Projesi, Kelime öğrenimi, Bilgisayar destekli dil öğrenimi, Quizlet yazılımı, İngilizce kelime öğretimi

ABSTRACT

THE EFFECTS OF QUIZLET ON STUDENTS' AND EFL TEACHERS' PERCEPTIONS ON VOCABULARY LEARNING / TEACHING PROCESS

Fatih TOY

**Master's Thesis, Süleyman Demirel University, Graduate School of Educational
Sciences, Department of Foreign Language Education
Advisor: Assist. Prof. Dr. Kağan BÜYÜKKARCI**

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The goal of this study is to analyze the effects of using Quizlet on students and teachers regarding the vocabulary learning under the circumstances of FATİH Project. This study also investigated the perceptions of learners and teachers regarding the use of Quizlet for vocabulary learning referring as one of the objectives of eTwinning English Olympics project. Using a mixed methodology of qualitative and quantitative research, the study included 200 8th Grader students, and 24 teachers. Control group using traditional instruction of vocabulary learning involved 100 students and 12 teachers while experimental group using Quizlet for vocabulary instruction included 100 students and 12 teachers. During an 8-week period of the study from early April 2018, to the late May 2018, both groups received an achievement test on vocabulary as pre-test and post-test. Additionally, experimental group students were also given a survey about perceptions and 10 teachers in this group were given a similar survey and a focus group interview with 8 teachers. Independent Samples T-Test showed that Quizlet use for vocabulary learning revealed a significant difference between 2 groups and an increase in the students' achievement particularly for word recognition. The surveys focus group interviews showed that students and teachers reported positive perceptions toward Quizlet while vocabulary learning as well as teachers.

Keywords: FATİH project, Vocabulary learning, CALL, Quizlet software, English language teaching

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LIST OF ABBREVIATIONS

YEĞİTEK : Directorate General of Innovation and Educational Technologies
ELT: English Language Teaching
EFL: English as a Foreign Language
L1: First Language
MoNE: Ministry of National Education
PD: Professional Development
CALL: Computer Assisted Language Learning
ICT: Information and Communication Tools
ESL: English as a Second Language
IWB: Interactive White Board
TTS: Text-To-Speech
EU: European Union
NSS: National Support Service
CSS: Central Support Service
MOOC: Massive Open Online Course
FATİH: The Movement for Increasing Opportunities and Enhancing Technology
FP : FATİH Project
BEP: Basic Education Program
OECD: Organisation for Economic Co-operation and Development
IT: Information Technology
MCI: Multiple Choice Item

OPERATIONAL DEFINITIONS

English as a Foreign Language (EFL): EFL is the teaching of English to the people whose native language is not English and who do not have regular chances to use English apart from the school and profession

FATİH Project: The Movement for Increasing Opportunities and Enhancing Technology led by MoNE of Turkey.

Computer-Assisted Language Learning (CALL): Computer-assisted language learning is the use of computer software to aid in teaching and learning a second language (Davies, 2003).

Vocabulary: The words in a specific language or independent items of language bearing meaning (McCarthy, 1990).

Word recognition: One's capability to recognize any written or spoken word with the least effort (McCarthy, 1990)

Strategy : A combination of plans and methods implemented to reach an objective

Perception : A way in which something is seen, evaluated, understood, perceived (Dijksterhuis, 2001).

Achievement: The term achievement refers to the degree or the level of success attained in some specific school tasks especially scholastic performance (Joshi & Srivastava, 2009, p. 34).

Motivation: "Motivation refers to the magnitude and direction of behavior; it refers to the choices people make as to what experiences or goals they will approach or avoid and the degree of effort they will exert in that respect" (Bomia, Beluzo, Demeester, Elander, Johnson, & Sheldon, 1997, p. 294).

1. INTRODUCTION

In this chapter, statement of the problem is presented by referring to the background of the study. Statement of the problem is followed by the scope of the study and purpose of the study including research questions. Significance of the study is detailed in terms of possible implications for technology integration into language learning and teaching literature. This is followed by assumptions of the study and limitations of the study subjectively.

1.1. Statement of the Problem

Students start to learn English as a foreign language, a required course, in the primary school and continue up to university in Turkey. The hours allotted for required English classes change according to the age range of the students, school types etc. Despite such a long period of English classes, students ranging from primary education to higher education may experience frustrations in comprehending a text, speaking with foreigners and native speakers of English when they see an unknown word however, they are competent in structure of English. Learners are somehow demotivated when they do not know which word to use (Bakla & Çekiç, 2017; Ilter, 2009). It is also a common saying among Turkish people “I know the rules etc but I have a problem with the words”. Henceforth, vocabulary proficiency is such a significant necessity in EFL contexts that it is mostly treated as a vital ground on which all language learning skills will be flourished (Blachowicz, Fisher, Ogle, & Watts-Taffe, 2006). Development of vocabulary is somewhat a prerequisite for achievement in reading, writing, speaking and listening skills. Accordingly, learners can communicate to some extent without grammar but they cannot convey anything without vocabulary (Wilkins, 1972). Moreover, lexical competence is considered as the primary requirement for establishing contact with other people and comprehending an audio and oral text (Spencer, 2008).

As for the practices for vocabulary learning held in schools, some students are given vocabulary lists and they are asked to write those words many times with their Turkish meanings. Some students use word boxes full of words in their classes but there is no standard in keeping the track of vocabulary progress of students in the schools and also out of the schools. Most of these strategies used for vocabulary learning and teaching

seem out-of-date because the students in 21st century do not show any interest in these strategies. The current students are more akin to take advantage of technology, particularly Information and Communication technologies (ICT) for their daily routines. Integration of ICT tools into the classes can affect the students' motivation for vocabulary learning to flourish language skills. It does not matter whether CALL / ICT tools are included in the classes or not, students will continue to use those tools for their leisure activities (Prensky, 2001). In that sense, it is essential that students' interest in ICT be utilized for vocabulary learning, ultimately proficiency in English.

In this study, implementation of an ICT tool, Quizlet will be investigated in relation to students' achievement in vocabulary learning, motivation for vocabulary learning, development of language skills and perceptions of both students and teachers toward the use of Quizlet.

1.2. Scope of the Study

This study will focus on the effects of ICT tools, particularly Quizlet which is a popular Web 2.0 tool among teachers and students with its online flashcards and individualized learning settings, on vocabulary learning and teaching in EFL contexts compared to traditional vocabulary learning and teaching methods especially in Turkey. Students' opinions and perceptions about learning vocabulary with CALL methods like integrating Web 2.0 tools like Quizlet will be discussed in a detailed way. In addition to comparison of students' vocabulary learning achievement in 2 students' groups of control and experimental, both students and teachers' perceptions towards learning / teaching vocabulary with ICT materials will also be discussed.

1.3. Purpose of the Study

This study will deal with the vocabulary teaching and learning in secondary schools in Turkey by using a Web 2.0 tool, Quizlet particularly 8 grader learners who take an English Test on Placement of Students for High Schools exam. The aim of this study is to analyze the effects of using Quizlet on students' achievement in vocabulary learning under the circumstances of FATIİH Project and ICT integration. This study will also investigate the perceptions of learners and teachers regarding the effects of Quizlet on

students' development of language skills and motivation for vocabulary learning referring to the following research questions:

1. Does Quizlet influence vocabulary learning success of the students?
2. Which activities on Quizlet attract the students for vocabulary learning?
3. How does Quizlet help students learn vocabulary?
4. What do teachers and students think about the effects of Quizlet on the development of any language skill for students?
5. What are the students' and teachers' perceptions about Quizlet regarding vocabulary learning?
6. What do teachers and students think about the effects of Quizlet on motivation of the students while learning vocabulary?

1.4. Significance of the Study

In Turkey, Ministry of National Education (MoNE) has carried out significant innovations in educational process like FATİH project. Teachers and learners are mostly expected to integrate technology into their activities and especially EFL teachers and learners are more susceptible to rapid changes in the Information and Communication Technology. Innovations in ICT or computer technology are more likely to be transferred into ELT arena than other subjects in education. EBA (Education and Information Network) is richer with ELT materials and applications than with other subjects. Recently, MoNE published the declaration of 2023 Education Vision and this visionary document gives particular importance to foreign language education in Turkey with particular emphasis on digital tools. 2023 Education Vision (2018) ascertains that teachers of English will be given online and on-site trainings about ICT integration, ELT activities will be boosted by digital materials. With the recent updated curriculum of foreign language education, it is mainly emphasized as “digital literacy of both teachers and learners in foreign language education is among the key characteristics” (2017, p. 5). Briefly, Turkish teachers of English and learners are supposed to take advantage of ICT tools to the most extent. This study appears to become very promising in the sense that perceptions of EFL teachers, and students, secondary school within the scope of this study, will be determined, particularly related to use of ICT tools and vocabulary teaching. In the literature, only some tools like Quizlet have been handled in

relation to vocabulary development and particularly in Turkey context in an experimental design. Memrise was included in an experimental study in Turkey as the latest research dealing with CALL and vocabulary learning (Bakla & Çekiç, 2017). Unlike the other studies in the literature by Bakla and Çekiç (2017), Ilter (2009) and Alshammari (2013), this study will determine whether, CALL / ICT integration, Quizlet in this study, will influence students' achievement in vocabulary learning, selection of strategies and motivation for vocabulary learning, vocabulary learning for the development of language skills and perceptions of both students and teachers. This study also signifies whether students are likely to show higher motivation and positive perceptions when they are asked to practice vocabulary with their individual trendy habits and routines. The study is also essential in the global context that it implements a worldwide tool, Quizlet, to investigate.

Besides the possible contributions of this study as for students' vocabulary learning, this study will shed light on uncovering the practical research-based methods for teachers regarding vocabulary teaching as the teachers are mostly found to opt for the strategies with which are they comfortable rather than those which are proved to be more effective (Vesley & Greyder, 2007).

1.5. Assumptions

This study is based on some assumptions as follows:

1. The students and teachers in the study will give the true answers to the questions in the surveys and interviews.
2. The students in the experimental group also take part in a national eTwinning Project, called as eTwinning English Olympics which requires students to use Quizlet, and henceforth they will use Quizlet in accordance with the purpose of the study.

1.6. Limitations

1. This study primarily deals with achievement of vocabulary learning of 8 Graders, and it is not concerned with independent variables like demographic characters and background of the learners.

2. The number of the participants is only limited to some cities and regions of actual population, so it seems better to include more cities and participants to reach at more generalizable results. Henceforth, the results of this study cannot be generalized.

3. The study is also limited in the aspect that participants are 8 grader students who take central exam in the end of academic year since this exam involves an English Test which mostly calls for the development of the reading and comprehension skills of students.

4. The duration of the study can also be extended more than 8 weeks.



2. CONCEPTUAL FRAMEWORK AND RELATED STUDIES

This chapter will start with Definition and History of Computer Assisted Language Learning (hereafter CALL) followed by CALL and Language Learning & Teaching. Strategies in Vocabulary Learning and Teaching precede CALL in Vocabulary Learning & Teaching, CALL and Motivation, which is followed by FATIH Project in Turkey. The final sections, eTwinning Project in Turkey and Quizlet will be followed by Perceptions in Vocabulary Learning and Teaching. All the sections will be related to the studies on the literature.

2.1. Definition and History of CALL

This section will cover Definition of CALL and history of CALL in relation to prominent theories and studies.

2.1.1. Definition of CALL

With the unprecedented rapidity of the developments in recent years in computer technologies, education politics and practices all over the world have been started to be planned and coordinated directly or indirectly related to effects of computer technologies. Particularly the effects of computer technologies in communication and informatics have accelerated the dynamic relation between education and computer technologies, and such a dynamic relation has given rise to assignment of a vital role to language teachers in the sense that globalized role of English as a lingua franca has also been vitalized in the dissemination of computer technologies (Brown & Warschauer, 2006). Furthermore, the advent of internet technologies has considerably boosted the role of English. To elaborate, the gradual increase of information in online information and communication technologies appears to force the reformation of English language curriculum without disregarding the contributions of online computer technology (Warschauer, 2002). In other words, the advances of online computer and communication technologies have been using English as a means for dissemination of the developments of computer and communication technologies, and for this reason, English curriculum has been revised by means of these advances. Henceforth, more and more countries have reformed their English language teaching / learning curriculums

integrating the technology into their new programs all over the world (Brown & Warschauer, 2006). As the latest example, Turkish MoNE declared 2023 Education vision with particular emphasis on digital innovation and integration in the foreign language education (MEB 2023 Eğitim Vizyonu, 2018). Overall, these changes have sustained the birth of CALL. In this respect, CALL is viewed as the integration of computer software to support both teaching and learning in foreign / second language (Davies, 2003)

2.1.2. History of CALL

The advent of CALL dates back to the 1950s and 1960s in the literature. The historical development of CALL has been discussed in 3 periods and these are Behaviouristic CALL, Communicative CALL and Integrative CALL with the specific characteristics in each period and approaches towards language teaching / learning. (Warschauer, 1996).

Behaviouristic CALL (also named as Structural CALL) started before 1970s, it was the most common CALL approach in that period until 1980s, and it was heavily based on the following arguments:

- Repeated exposure to the same material is a primary condition for learning
- CALL provides the repeated drills for learners so that learning emerges at the students' individualized pace.
- Grammar, vocabulary tutorials, practice programs and testing tools are the common features of this approach (Kern & Warschauer, 2000)
- Audio-Lingual and Grammar Translation Methods are also utilized in the Behaviouristic CALL (Larsen & Freeman, 1986; Tick, 2006)

The second period of CALL is Communicative CALL introduced in early 1970s and became dominant in 1980s. Communicative CALL was based on the cognitive theories suggesting, "learning was a process of discovery, expression and development" (Warschauer & Healey, 1998, p. 57). This period was also essential in the sense that people just started to use personal computers. Computers were mostly utilized for practising the skills. The apparent characteristics of this period were listed by Underwood (1984, p. 4) as follows:

- Using forms rather than just having information about forms
- Implicit grammar instruction instead of explicit grammar instruction
- Common use of target language
- Disregarding the immediate correction

Communicative CALL favored the skill practice, students were introduced with more meaningful contexts via some software programs, and all these provided the students with the opportunity to learn the language by creating their own information about the language (Davies, 2003; Warshauer & Meskill, 2000)

The last period of CALL, Integrative CALL, started with the introduction of internet technology and multimedia computers in the mid 1990s (Warshauer, 1996). This period has been under the dominance of socio-cognitive theories and it is widely accepted that “real language use in meaningful and authentic context” should be implemented (Lee, 2000, p.2). Accordingly, the integration of four language skills, reading, listening, writing and speaking via computer and internet technology sustained some approaches like project-based, task-based and content-based, which have been viewed to result in the creation of authentic language learning environments (Warshauer & Healey, 1998; Chartrand, 2004; Tick, 2006). The most prominent characteristics of this period are as follows:

- All four language skills were included in a task by means of multimedia (CD-Roms) and internet
- Online activities provided the learners with the equal chances to take part in the interaction
- Outside-of- Class-Discussions were introduced thanks to internet technology
- Instant access to authentic language learning materials through internet

All these enabled the students to access millions of language materials through which they could boost four language skills in an interactive environment even by generating their own materials and sharing those with their peers (Warshauer & Meskill, 2000; Kern & Warshauer, 2000; Davies, 2003; Tick, 2006).

2.2. CALL and Language Learning / Teaching

In modern times, teens have started to show an unprecedented, and somewhat inborn, interest in computer technologies. In other words, teens of modern ages are deemed as the native speakers of digital technologies, called as Digital Natives (Prensky, 2001). As a counterpart for Digital Natives, Prensky (2001. p.1) uses “Digital Immigrants” for the adults of 2000s in the aspect that they can adapt themselves to the digital technologies at later ages of their lives. While digital natives show an inborn or natural proneness to the computers and internet technologies, the digital immigrants may retain in the beginning at least. Accordingly, Prensky (2001. p. 1) underlines an important point stating, “Our students have changed radically. Today’s students are no longer the people our educational system was designed to teach”. Prensky (2001) continues to argue that “our Digital Immigrant instructors, who speak an outdated language (that of the pre-digital age), are struggling to teach a population that speaks an entirely new language”. This divergence is also accepted as usual since digital is viewed as a natural development. “Digital natives currently have access to a great amount of materials on internet and they are akin to use target language however they are proficient in that language or not” (Kol & Scholnik, 2000. p.68).

It is also deemed as a phenomenon that communication technologies have continued to develop so rapidly that language learning and teaching, since language is the primary and natural means of communication, can no longer be sustained via the past forms of instruction (Kern, 2006). The changes in computer and communication technologies have necessarily affected the educational approaches with the advent of educational technologies. Furthermore, digital natives are not given efficient instruction by means of the past techniques, but with the help of educational technologies it is widely thought that both language learners and teachers are able to act more efficiently and easily (James, 1996).

As for a general panorama of the studies into the effects of CALL, Levy and Stockwell (2006) argue that the effects of CALL stand as localized rather than globalized although CALL itself has mostly evolved as a product of the international advances in the technology due to the fact that researchers have mostly collected data from the people around themselves. Stockwell (2007) has taken a detailed look at the 207 empirical

studies regarding CALL from 2001 to 2005 referring to four selected criteria practicality, user-friendliness, evidence based effectiveness, and cost effectiveness. These criteria are categorized as language areas and language skills. Stockwell (2007) points out that there is no single accurate technology, which meets the demands of teachers, students, curriculum standards etc. All in all, Stockwell (2007) suggests that the most common language areas in which CALL technologies work best are vocabulary, grammar and pronunciation. Since vocabulary is the main objective of this study, it will be discussed in a more detailed way in the following chapters in general and specific to CALL.

To start with the studies related to the effects of CALL on Grammar instruction, most of the researchers have stressed on the instruction about forms and functionality. Additionally, most of the studies highlighted that students reported positive attitudes, individualized learning, increasing self-confidence and anxiety reduction (Allum, 2002; Hegelheimer, 2006; Torlakovic & Deugo, 2004).

Allum (2002) carried out a comparative study to determine the differences between traditional delivery and computerized delivery by means of *Hot Potatoes 5.2* (JQuiz/ JMatch/ JCloze/ JBC) in terms of grammatical accuracy. Allum (2002) designed the study in which thirty- three Japanese ESL students at intermediate level took part for 8 weeks. The results of the study revealed that group of students with computerized delivery of grammar items outperformed the group with traditional delivery regarding grammatical accuracy and learner control at their own pace. The findings also suggested that learners have developed positive attitudes towards CALL technology.

Like Allum, Deugo and Torlakovic (2004) conducted a comparative study to see the effects of Adverbial Analyzer, computer software, on learning adverbs and adverbials, particularly using adverbs in the correct place of the sentences. The researchers formed two groups of students, one of which received teacher-led instruction and the other received CALL technology. The study found that experimental group using CALL technology surpassed the control group in the posttests. The post interviews of the study with the students of experimental groups have also suggested that the common advantages of CALL system are frequent exposure to the targeted form, individualized control over their learning, immediate feedback and anxiety reduction.

Another study conducted by Hegelheimer (2006) intended to determine the effects of *iWrite*, a computer software, on learners' grammatical awareness and activation of self-correction mechanism particularly in writing domain. The investigation lasted for eight weeks with nine undergraduate students. Students used *iWrite* software for 8 weeks while writing their own papers. The results of the study have suggested that students boosted their grammatical awareness, self-correction for spelling errors, showed less grammatical mistakes. As a significant report out of post interviews, students revealed an increase of self-confidence in writing papers.

As for the effects of CALL on pronunciation, it is essential to mention the most common tools developed for pronunciation. Some of these tools are freewares, commercially produced softwares, self-developed and open-source softwares (Stockwell, 2007). In the literature some programs were reported as available and freely downloadable for teaching pronunciation and intonation such as *WASP* (Brett, 2004; Huckvale, 2003) and *PRAAT* (Boersma & Weenink, 2004) *VisiPitch*.

PRAAT developed by Boersma and Weenink (2004) is a free program and Brett (2004) investigated its effect on articulation of vowel sounds with Italian learners of English. The study focused on the vowel sounds, which are not found in the mother tongues of students, and it has been found out that prompt graphical feedback provided by *PRAAT* has developed the articulation of vowel sounds.

Like Brett (2004), Abberton and Taniguchi (1999) conducted an empirical study with *Laryngograph processor* that has an interactive visual screen helping pronunciation and intonation. The study sample was composed of experimental and control groups of students. The experimental group practised pronunciation with the help of processor while the other group was exposed to teacher delivery with traditional methods for 8 weeks. The researchers have found out that CALL system, here processor, enabled the experimental group students to develop their proficiency in intonation and pronunciation.

Accordingly, Lewis and Pickering (2004) used Speech Visualization Technology to study the intonation and pronunciation of the sentences on the sentential and discursal

dimension in an investigation conducted in IOWA State University. Two pairs of students were asked to read sentences in isolation and sentences in the text. The Kay Elemetrics Computerized Speech Lab was administered to examine the intonation of students and significant development of intonation was reported and the researchers have concluded that CALL system appeared to meet the demand of conveying the messages with the accurate intonation.

As the last study regarding the pronunciation, Gonzalez (2007) stated that CALL applications also sustain the formation of learner autonomy. Gonzales (2007) investigated whether Text-To-Speech (TTS) applications help the students develop pronunciation or not. Learners used TTS applications by listening to the written sentences on the web or pronounce the written sentences by recording. In other words, learners can check their pronunciation performances and learn the pronunciation of new words, phrases etc. It was revealed out that students appeared to develop learner autonomy gradually; they could refer to self-correction when they mispronounced (Gonzalez, 2007).

Having taken a detailed look at the literature, most studies have been found out to report that CALL has made language learning and teaching more efficient. (Chen, Belkada & Okamoto, 2004; Chun & Brandi, 1992; Hoffman, 1995-1996; Legenhausen & Wolff, 1990; Liu, Moore, Graham & Lee, 2003; Pusack & Otto, 1990). As an example, Liu et al (2003) found that students taking advantage of computer technologies performed better than the students not using computer technologies. The discussion of such research will be given in the Chapter 2.4.

To sum up, all the studies mentioned above indicated that CALL was found to have positive effects on development of grammar, pronunciation of learners. Learners participating in the studies mentioned above also reported learner autonomy, self-correction, and arousal of grammatical awareness, learner control, individualized learning at one's own pace, self-confidence and anxiety reduction and positive perceptions in spite of the fewer number of participants.

2.3. Strategies in Vocabulary Learning and Teaching

It is essential that “word” be defined which is considered as the ground of vocabulary before starting the discussion of vocabulary learning and teaching. Vygotsky defines the word as “microcosm of human consciousness” (Vygotsky, 1986, cited in Thornbury, 2002, p.1). Accordingly, word cannot be thought as isolated and independent components but sound complications when they are used in both sentential and discoursal level (Schmitt, 2001; Wesche & Paribakht 2000).

To Nation (2001) “knowing a word requires one’s knowledge about the pronunciation of that word, spelling, morphological segments, semantic aspects, its meaning, collocations, grammatical features and contextual effects on the accurate use of that word” (cited in Tokaç, 2005, p. 13). Thornbury (2002, p. 12) states the common properties of a word considering it as a complication rather than a discrete unit as given below:

- ✓ Words undertake different functions like grammatical meanings and deal of information
- ✓ A word can appear in different formats
- ✓ A word can be affixed, suffixed, prefixed and connected to other words to refer new meanings
- ✓ Combination of words can stand single words as if they had independent meanings
- ✓ A word can be used with other words
- ✓ Words can refer to different meanings when they appear or sound the same
- ✓ Words can stand as synonyms and antonyms

In addition to the definition of “word”, it is also essential that “vocabulary” be defined and McCarthy (1990) views “vocabulary” as the words in a specific language or freestanding items of language that have meaning (p. 3). In accordance with the abovementioned common properties of words, vocabulary knowledge or development of vocabulary refers to a complicated process due to the fact that words can gain different meanings from up to the environment of other words in the sentences and even in paragraphs. To define vocabulary learning, it is widely accepted that students are supposed to grasp the meanings of most words in a text and face the unfamiliar words

(Hayes, Wolfer, & Wolfer, 1996, as cited in Hiebert & Kamil, 2005, p. 1). To Benjamin and Crow (2010), vocabulary learning requires having information about the etymology, gender, grammatical context, phrases, references, synonyms, antonyms, pronunciation, spelling, connotation, register and collocation of the word.

The mechanism of vocabulary learning is regarded as an “vocabulary is not a developmental skill or one that can ever be seen as fully mastered. The expansion and elaboration of vocabularies is something that extends across a lifetime” (Hiebert & Kamil, 2005, p. 2). In other words, the nature of vocabulary learning is not a static but a dynamic lifelong process.

In the literature, the research has disregarded the role of vocabulary despite the fact that vocabulary learning / acquisition is an indispensable requirement in both first language and second language context as it is discussed by Nation (1990, p. 75) like below:

“Its neglect is in part due to a special significance on syntax, especially coming from the movement named *Structuralism* which affected the whole linguistic world between the years 1950-60s. Although the shift to generative (transformational) linguistics in the 1960s brought about revolutionary changes in linguistic theory, triggered by Chomsky (1957) it did little changes to challenge the idea that the role of lexis was secondary to that of grammar”.

The interest in vocabulary in the research has gradually started to appear in late 1970s and early 1980s (Judd 1978; Laufer 1986, cited in Celce-Murcia, 2001, p. 285; McCarthy 1984; Meara 1981). Yet vocabulary did not still attract the attention of scholars as grammar did and it was not viewed as a primary component for language learning and teaching but just aid for functional use (Carter and McCarthy, 1988, cited in Celce-Murcia, 2001, p. 285; Schmitt, 2000, cited in Tokaç, 2005, p. 13). In that sense, Wilkins (1972, p. 111) points out that “without grammar very little can be conveyed, without vocabulary nothing can be conveyed”, which suggests the vital role of vocabulary in language learning / teaching.

Correspondingly, Spencer (2008) conducted a study with second language university students regarding listening and the findings have yielded that lack of necessary

vocabulary was a primary barrier in front of communication and comprehending a text. Likewise, “second language learners mostly get nervous upon facing an unknown word while reading a text and they promptly refer to a dictionary, which is distracting the flow of reading and eventually the comprehension” (Eskey & Grabe, 1988, p. 235). Furthermore, it is also widely accepted that knowledge of vocabulary aligns with comprehension and most verbal skills and all language learning based on vocabulary knowledge (Terman, 1916; also cited in Blachowicz, Fisher, Folse, 2010; Ogle, & Watts-Taffe, 2006, p. 526). Vocabulary knowledge was also found out as a primary challenge for language learners (Tabatabaei & Goojani, 2012). Folse (2004) also sustains the point that vocabulary knowledge is viewed as a major challenge by stating that language learners may get frustrated facing an unknown word and not being able to find the target word in their language repertoire. All in all, vocabulary plays an essential role in language learning.

The primary role of vocabulary learning has started to attract the attention of researchers in early 1990s (Hatch & Brown, 1995). Henceforth, most studies reported that teaching vocabulary does not only involve teaching words but it also calls for teachers to equip the learners with necessary strategies to boost their vocabulary knowledge (Hulstijn, 1993, cited in Morin & Goebel, 2001). Providing that language learners are equipped with strategies, they become more and more autonomous learners with the capacity to control their learning at their own pace, increase in self-confidence, engagement and considerable level of proficiency (Oxford, 1990).

The vocabulary learning strategies are classified as metacognitive, cognitive, memory and activation strategies (Gu & Johnson, 1996). Metacognitive strategies involve selective attention and self-initiation strategies which imply learner autonomy. Cognitive strategies indicate guessing, efficient use of dictionaries and note-taking. Memory strategies are grouped into two sub-categories, rehearsal and encoding. Rehearsal strategies are repetition and use of word lists by the language learners whereas encoding strategies include association, imagery, visual, auditory, semantic and contextual segmentation. Activation strategies stand as the implementation of all of metacognitive, cognitive and memory strategies (Gu & Johnson, 1996).

As another classification of vocabulary learning strategies, Schmitt (1997) categorizes the strategies into two groups for their use. The first group involves ‘determination’ and ‘social strategies’ used upon facing a new word while the second group includes the cognitive, metacognitive, memory and social strategies employed to increase the familiarity with previously learned vocabulary. To give concrete examples of these strategies, learners use social strategies when they learn vocabulary in group works in collaboration, memory strategies associating the words with the words they have learnt before. Students employ cognitive strategies like repetition, word lists, and flashcards and vocabulary notes. The metacognitive strategies include students’ forming autonomy and control their own learning with the help of three other strategies (Schmitt, 1997, p. 216).

Besides the abovementioned strategies suggested by Gu and Johnson (1996) and Schmitt (1997), the newer strategies of vocabulary learning have been drawn by Nation (2001). The strategies in this classification fall into three groups of “planning”, “source” and “process” and these groups are also divided into sub levels (See, Table 1).

Table 1. Categories of vocabulary learning strategies

CATEGORIES	EXPLANATION
<i>Planning</i> (deciding where, how and how often to consider the vocabulary items)	<ul style="list-style-type: none"> ➤ Selecting the words to use, ➤ Selecting the accurate strategies to learn words ➤ Focusing parts of the words
<i>Source</i> (accessing information about the word)	<ul style="list-style-type: none"> ➤ Knowing the word form, context ➤ Referring to dictionaries, glossaries ➤ Relating the word with the words in other languages ➤ Noticing refers to encountering the target word by means of keeping a vocabulary log, repeating the target word orally or visually
<i>Process</i> (accessing information about the word via noticing, retrieving and generating strategies)	<ul style="list-style-type: none"> ➤ Retrieval refers to refreshing the words previously learnt ➤ Generating refers to adding new dimensions to the previously learnt words through instantiation, creating context, different collocations and sentences in which the words used

Related to this classification, Nation (2001) suggests teachers to provide the learners with different learning strategies since learners' interviews revealed out that learners may search for tips and advices on how to develop vocabulary outside the classroom. Correspondingly, research has also reported that language learners appear to be more successful when they use different learning strategies and they also become more self-confident and autonomous (Chamot, 1999). Sanaoui (1995) has found that learners approaching vocabulary with certain strategies were better at recalling vocabulary than those without any strategies.

Rather than presenting a taxonomic categorization, Laufer and Hulstijn (2001. p. 4) suggest "incidental vocabulary learning" and "intentional vocabulary learning". Learners employ incidental vocabulary learning when they do not give explicit effort and attention and intentional vocabulary learning when they pay purposeful attention and effort to retain vocabulary. As for the effects of incidental and intentional learning, Chen (2006) investigated the influence of intentional vocabulary learning with 78 intermediate ESL students and Peters et al. (Peters, Hulstijn, Sercu & Lutjeharms, 2009) administered a study with intermediate students using incidental learning. The students in both studies using intentional vocabulary learning significantly outperformed those using incidental learning regarding vocabulary retention. The effects of intentional vocabulary learning were also reported to promote vocabulary learning if sustained by CALL (Groot, 2000).

As for the strategies employed by the teachers, Vesley and Gryder (2007) have conducted a study revealing out that teachers mostly preferred the strategies, which they were good at rather than considering the research findings led by scholars. The research also has suggested that teachers are mostly prone not to help the students while developing vocabulary, that is, teachers leave the students alone and students try to learn vocabulary by themselves (Kiliçkaya & Krajka, 2010b; Vesley & Gryder, 2007). The study by (Kiliçkaya & Krajka, 2010b) has found out that most of the instructors were convinced of the point that students had better develop vocabulary by means of frequent reading and this has indicated that students could be left alone while learning vocabulary.

The research has also reported about the students' practices on vocabulary development (Atkinson & Raugh, 1975; Boyd & Rubin, 2002; Carlo et al. 2004; Carrier & Tatum, 2006; David, 2010; Hall & Verplaetse, 2000; Ma, 2009; Rashidi & Omid, 2011). Rashidi and Omid (2011) conducted a study with Iranian undergraduate EFL students, and they reached at the point that students did not prefer only rote memorization but also other strategies like mnemonic strategies and cognitive and metacognitive strategies. Accordingly, Ma (2009) carried out an investigation with Chinese EFL students and findings have shown that students opted for cognitive, metacognitive, social and memory strategies. As a comprehensive research focusing directly on the students' preferred choices, Carvalho (2013) conducted a qualitative study selecting learners of Spanish in the University of Nebraska. Students were asked to respond questions in a survey and findings revealed out followings:

- ✓ Vocabulary should be presented to the students within a context rather than as isolated
- ✓ Learners are prone not to study the word lists by memorizing
- ✓ Learners should be presented vocabulary words with the usage in sample sentences and translation in the target language rather than loaded information of affixes, prefixes, roots etc.
- ✓ Learners opt for the emphasize on pronunciation by teachers rather than exposing them to heavy listening tasks
- ✓ Learners preferred the presentation of vocabulary with the help of visual aids
- ✓ Learners mostly show tendency to practice new words on their own at their individual pace.

In accordance with the research abovementioned, Nation (2005) highlighted that vocabulary teaching should be treated by means of learner centered approaches so that learners can easily retain vocabulary rather than mere memorization. These approaches may involve techniques like using audio-visual aids, pictures, flashcards, and samples of words usage. Consequently, CALL, particularly Quizlet in this study seems to provide learners with some options to employ these strategies while practicing vocabulary. To exemplify, Quizlet includes tasks and activities beyond mere memorization, flashcards rather than just translations, frequent exposure to

pronunciation. The diversity of activities on Quizlet will be discussed in Methodology chapter as detailed.

2.4. CALL in Vocabulary Learning and Teaching

Until recently, research has not treated vocabulary teaching and learning as a primary study field (Cassidy, 2005 / 2006). This chapter will focus on the studies related to the use of CALL in vocabulary teaching and learning.

CALL technologies and traditional instruction practices were compared in a study conducted by Kiliçkaya and Krajka (2010a). In that study, experimental group students used Wordchamp, a computerized program used in digital texts providing the students with the meanings, pronunciation of the words and even student can create unknown word lists in this program to review later on. The control group students received the traditional instruction of vocabulary learning. The study has yielded that most of the students in the experimental group surpassed those in the control group particularly in posttests. Accordingly, Yousefzadeh (2011) accomplished a study with 70 high school students in Iran to compare the effects of mobile-based and paper-based learning of vocabulary collocations. The control and experimental group took pre-tests and both groups were found homogenous, no significant difference between each other. At the end of the study, both groups took post tests and consequences of the tests revealed out that experimental group students outperformed the control group students. Both studies suggested that learners can keep track of their own vocabulary learning, individualized learning (Kiliçkaya & Krajka, 2010a; Yousefzadeh, 2011).

Chieh (2006) carried out a study in Taiwan with undergraduate learners of English. The students were separated into two groups as experimental and control group. The students in the experimental group received a Teacher Guided Multimedia CD-ROM program instruction on vocabulary while the control group received traditional lecture type instruction for 4 weeks. The results of the study have displayed that students of experimental group performed more successfully than those in the control group regarding the vocabulary acquisition.

As a model of constructivist learning material, WEBVOCLE was administered to 69 students in foreign language preparatory class by Baturay et al. (Baturay, Daloğlu & Yıldırım, 2009). The rate of vocabulary retention was analyzed in the study by means of retention tests, face-to-face interviews and focus group interviews. EFL learners practised vocabulary with the help of WEBVOCLE and post tests have suggested higher rate of retention among students. The qualitative data obtained in the study via interviews has also unveiled that students have started to develop positive attitudes towards vocabulary development via web-based technologies. Like Baturay et al. (2009), Fidan (2003) tackled with the vocabulary retention of the students using TRAINER, a web-based system. The participants were language learners in preparatory school and they were asked to use TRAINER for three weeks to practise vocabulary. The findings exhibited that learners in the experimental group could recall more words than those in the control group.

As a long-term study, Horst, Cobb and Nicolae (2005) carried out a 13-week study with fifty-four undergraduate students in Canada to determine if the students could develop their vocabulary and increase the retention of vocabulary through some online instruments like an online dictionary, concordances and an interactive portal (www.lexutor.ca) in which students can administer self-check quizzes. The researchers have disclosed that students improved their vocabulary and increased the rate of vocabulary retention by means of interactive tasks and materials like quizzes, online dictionaries, databases and creating individually online wordlists.

Lastly, Bakla and Çekiç (2017) designed another experimental study with another CALL tool, *Memrise*, online flashcard software for vocabulary learning. The study involved 80 upper –intermediate EFL learners in Turkey and students were asked to study vocabulary in the same reading passage. Experimental group learners used *Memrise* whereas control group learners studied the words with traditional methods. Being the first study dealing with comparison of traditional methods with CALL for vocabulary learning, it was found that *Memrise* increased the success in vocabulary learning and flashcard software for vocabulary learning provided the learners with the mechanism to control their own techniques, practice at the individual pace, choose the words to study in light of their performance on *Memrise*.

To sum up, the abovementioned research findings have overlapped in the benefits of CALL in the process of developing vocabulary regarding the retention, recalling, establishing students' own learning mechanism, keeping track of their individualized performance. Unlike those studies, this study involved more participants and a longer period of experimentation.

2.5. CALL and Motivation

As one of the research question of this study deals with the perceptions of learners toward motivation while using CALL, it is essential that conceptual framework of motivation in line with the findings of previous studies be included. "Motivation refers to the magnitude and direction of behavior; it refers to the choices people make as to what experiences or goals they will approach or avoid and the degree of effort they will exert in that respect" (Bomia, Beluzo, Demeester, Elander, Johnson, & Sheldon, 1997, p. 294). Among the advantages of CALL, increase in the motivation of learners was mostly revealed (Lee, 2000). Technology was also reported to increase students' motivation as technology integration converted the classes to more interactive learning environments (Step-Granny, 2000). Zengin (2007) also ascertained that learners became more motivated when they faced more interactive and multi-media lessons.

As for the studies directly dealing with CALL effects on learners' motivation, a study was carried out to discover the effects of internet use in language classes by Ellinger et al (2001). The study reported that students convinced of the point that technology and internet use increased their motivation, learning autonomy, and activation of enthusiasm in the classes. In the literature, use of authentic videos and films were also found to reinforce motivation for communicative skills and development of authentic words regarding the contextual use of vocabulary (Chapple & Curtis, 2000). Chapple and Curtis (2000) also indicated that using technology brings motivation to develop four language skills in line with the findings of other studies (Anderson & Speck, 2001; Case & Truscott, 1999; Kung, 2003). Case and Truscott (1999) suggested that computer and internet were beneficial for increase of motivation in reading tasks. Ilter (2009) conducted a study dealing with the effects of technology on motivation in Akdeniz University with 350 students receiving EFL classes from different departments. The study revealed that students perceived authentic materials on internet more motivating,

CALL integrated classes more entertaining. Additionally, it was found that more than half of the students compared traditional methods with CALL and they favored CALL integration for more enjoyable EFL classes (Ilter, 2009).

To sum up, students in the former studies reported that technology and internet increased their motivation in EFL classes. Enthusiasm, learner autonomy were found as common indicators of motivation for all language skills. This study diverges from the previous studies since it focuses on the effects of CALL for motivation for vocabulary learning.

2.6. FATİH Project in Turkey

Turkish education system introduced with technology as soon as the people started to use technology in social life. As for the communication technology, Turkey started to broadcast first radio in 1927 and Education Center with Radio was established in 1962, educational programs for the students were broadcasted by this center (Akkoyunlu & Imer, 1999). Ministry of National Education (MoNE) of Turkey started to use computers in secondary schools in 1984 (Akbaba & Altun, 2006).

After the mid 1990s, Turkey has started to increase the invest on integration of educational technologies in the schools. Accordingly, Basic Education Program (BEP) was initiated in Turkey by loaning 300 million dollars from World Bank and it was the most comprehensive educational program in those years (Özdemir & Kılıç, 2007). The first phase of BEP was executed between 1998 and 2003. In that aspect, MoNE began to equip the schools with Information Technology classes, computers and other information technology tools were given to the schools both in urban and rural areas (OECD, 2005, p. 54). The secondary phase of BEP was executed between 2003 and 2010 and it was targeted at placing the educational technology infrastructure in the vocational and technical secondary schools (Özdemir & Kılıç, 2007).

The second movement of educational technology in Turkey was started in 2012 with FATİH project, which is any acronym for “The Movement for Increasing Opportunities and Enhancing Technology”. This project appears to bring revolutionary movements in

the history of integration of educational technologies. FATİH project intended to equip all the schools with technological materials like multi-functional printers, Interactive White Board (IWB) and students and teachers with Tablet PCs. This can be interpreted as being inspired by the importance of equality in the education (Bandura, 1997).

The website of FATİH project declares that it is composed of 5 basic components as listed below:

- providing the infrastructure for hardware and software
- presenting and managing pedagogical e-content
- effective and efficient use of computerized technology in the curriculum
- providing in-service training for teachers
- enabling the people to use information technology (IT) tools in a conscious, safe, measureable and manageable way (FATİH Projesi, 2018).

As for the studies related to FATİH project, Sayır (2014) investigated attitudes of teachers and students. The study has dealt with the attitudes of teachers and students towards IWBs in EFL context. Both students and teachers have reported that IWBs boost their motivations and enable students and teachers to learn and teach English more efficiently. In accordance with the results of this study, Kızılet (2016) conducted a study composed of qualitative and quantitative methodologies and participants were students and teachers of English at an uppergrade secondary school. The results of the study have highlighted that both students and teachers developed positive attitudes towards FP (FATİH Project), students opted for using the e-content not only in the school but also out of the school. English teachers also reported the similar attitudes towards IWBs while they did not favor the use of Tablet PCs.

2.7. eTwinning Project

Massive Open Online Courses (MOOCs) have recently started to become popular among the teachers, students, teacher trainers, teacher trainees who are prone to have common interests, educational practices, and professional routines and seek the solutions for the common problems within their educational communities by means of ICT tools, applications. MOOCs are also viewed as the platforms where teachers,

students, teacher trainers and other stakeholders in education share their good practices (McConnell, 2006; Luppicini, 2007). To Duncan Howell (2010), MOOCs are the platforms and communities which provide the teachers with the opportunities to proceed their professional developments through computerized technology.

As a common example, eTwinning is a well-known MOOC platform where teachers and students exchange models of good practices via projects. eTwinning was officially founded in Brussel in 2005 as a sub-unit of Educational Affairs of European Commission (Gilleran, 2007). Turkey was included in eTwinning program in 2009. eTwinning, initiated as the primary move of e-learning by European Commission, is an online community (eTwinning Türkiye, 2018). eTwinning provides the teachers and students in EU and EU-candidate countries with the chances to communicate, collaborate, develop projects and share / exchange good practices within themselves (eTwinning Türkiye, 2018).

By April 2019, eTwinning is the platform in which 681.815 teachers are registered, 205.230 schools are enrolled 89.491 projects are made. Scimeca (2010) suggests that eTwinning is the online meeting point for the teachers and students to exchange good practices, project based learning in the light of 21.Century Skills by means of Web 2.0 tools. eTwinning services are executed by Central Support Service (CSS) located in Brussel under the frame of European School Network in coordination with National Support Services (NSS) in the included countries. All the applications, tasks, practices, materials produced by eTwinners teachers and students in the projects are recorded by CSS. Brochures, e-materials, magazines, books, surveys, web sites are the examples of common products by eTwinners teachers, students, schools in the frame of national and international projects. Consequently, teachers, students and schools are awarded with national, European Quality labels, eTwinning School Labels. Furthermore, awarded teachers and students can be invited to national and international seminars, workshops, conferences (Gilleran, 2007; Vuorikari & Scimeca, 2012). Manfredini (2007) calls eTwinning as an opportunity for both students to learn new cultures and teachers to rise their motivation for new approaches in education and proceed their professional development.

Taken a glance into the literature, it is obvious that less research was conducted in Turkey, as it was included in the program in 2009 than other countries in Europe. The coordination of eTwinning in Turkey is officially managed by NSS within the Directorate of General Innovation and Educational Technologies (YEĞİTEK) under Turkey's MoNE. Most of the studies appeared to focus on the effects of eTwinning regarding the perceptions and attitudes of teachers rather than students. A case study carried out by Peachley (2009) reported that eTwinning platform brings different schools from various countries together and thus both teachers and students were supposed to use ICT tools for the share of good practices and exchange of information. Furthermore, the same study revealed out that teachers and students could not avoid themselves of using Web 2.0 tools in order that they would create common collaborative products and perform cooperative tasks in social media. Velea (2012) carried out a qualitative study in Romania to determine the effects of eTwinning practices on the schools and teachers using technology in the projects. The investigation has indicated some advantages of eTwinning practices as listed below:

- the support for partnerships among schools thanks to ICT tools
- the effects of the partnerships on the learning process of students
- attraction of the learning process through technology
- posing the students more active and autonomous
- the contribution to the Professional Development (PD) of teachers

As one of the comprehensive studies dealing with the effects of eTwinning on students and teachers, Fat (2012) handled a qualitative research design with interviews and case studies with teachers and school administrators. The major finding was that eTwinning was viewed as a flexible platform in which all the teachers could access to develop their professional and technological skills. Coutinha and Rocha (2007) carried out a study with teachers and students taking part in eTwinning projects in Portugal and The Republic of Czech. The case study and interviews have disclosed that eTwinning projects enabled the students and teachers to develop their ICT skills, social awareness of global concerns, arise tolerance towards various cultures, the awareness of collaboration.

The review of literature has also indicated that eTwinning projects provided the students with opportunities to experience practices of gamification, flipped classroom learning, creative strategies for teaching, innovative approaches, develop foreign language skills in all the disciplines, high-level of motivation for learning (Akdemir, 2017; Bacigalipo & Cachia, 2011; Holmes, 2013; Kampylis, Bocconi & Punie, 2012; Prenza, 2013; Rampone, 2013; Yılmaz & Yılmaz, 2012).

2.8. Quizlet

Quizlet, that is the central experimental tool of this study, is multi-faceted CALL software owing to the point that teachers and students can use it on web and as an application available in Apple Store and Play Store. It can be viewed as an online learning / teaching community platform as the teachers can create their classes and manage the tasks of these classes by tracking progress of learners. Quizlet can also be regarded as a mobile tool since it is available for the access of teachers and students on both Apple Store and Play Store. Quizlet mission page claims that it aims at helping both teachers and students practice and master what they have learnt, mostly vocabulary, whenever / wherever they are. Quizlet, created 10 years ago, presents the students and teachers engaging, customizable activities with contributions from people all over the world (Quizlet, 2019). To Quizlet webpage, it currently hosts 50 million monthly learners, more than 3 billion study sessions and 300 million sets. Detailed definition of the Quizlet will be given under Methodology Chapter.

The review of the research has yielded that Quizlet has attracted just a little attention of researchers, but just with a few studies comparing Quizlet to other ICT tools. As a comprehensive study, Alshammari (2013) handled Quizlet in partial fulfillment of a thesis to show the effects of immersive-game based learning and vocabulary flashcards on vocabulary teaching and acquisition with a quantitative methodology. The study sample was composed of 2 experimental groups and 1 group studied the words via The Shield, an online portal of immersive video games and the other group used Quizlet, online flashcard sets of vocabulary. The experimentation lasted for 2 weeks and analysis of the results has uncovered that immersive-game based learning was more effective than flashcard sets in vocabulary spelling, pronunciation achievement while

flashcard sets, Quizlet, were not found alike. However, flashcard sets were found to have greater effect on word recognition than immersive-game based, *The Shield*. In addition to the achievement scores, Alshammari (2013) also investigated the attitudes of students towards Quizlet and The Shield and it was reported that immersive-game based learning, *The Shield* was viewed as more time consuming than Quizlet despite the finding that both CALL materials motivated learners to a considerable extent. Another comparative case study was conducted by Chien (2015) to analyze the effects of digital flashcard platforms, Quizlet, Studystack and Cram (once called as Flashcard Exchange) on learners' lexical development in a Taiwan college. The observations and interviews administered to 20 college students (out of 64 students observed) found out that all flashcard websites mostly focused on word recognition, meaning and interviewees also reported positive perceptions for those web sites.

As another comprehensive study dealing with the effects of Quizlet on developing vocabulary, Boyce (2016) conducted, an experimental study for partial fulfillment of master arts thesis and the research design included 7 students with learning handicaps in science class in a middle school in New Jersey. Students were asked to study science vocabulary using Quizlet Flashcards and post tests as assignments were given to the students as well as surveys for attitudes. The results have highlighted that students achieved better in recognition of science vocabulary, increased the amount of time-on – task while using Quizlet. The surveys in the study revealed out that students with learning disabilities developed positive perceptions about Quizlet.

Briefly, the studies dealing with Quizlet in the literature revealed that learners were found to increase the success in vocabulary learning in terms of word recognition and develop positive attitudes. The abovementioned studies also had limitation of length of experimentation period and they also did not tackle with the relation of the activities on Quizlet to the learners' preferred choices unlike this study.

2.9. Perceptions in Vocabulary Learning and Teaching

Upon the reviewing the literature on the effects of CALL on teaching / learning English, most of the studies have been found out to focus on the perceptions and attitudes of

teachers towards the use of CALL more frequently than perceptions and attitudes of students (Alshwairkh, 2004; Eyyam, Meneviş & Doğruer, 2010; Genç, 2011; Hismanoğlu, 2010; Işık, 2009; Johnson & Heffernan, 2006; Ma & Kelly, 2006; Pekel, 2002)

Regarding the attitudes of ELT teachers towards the use of computer technology in English language teaching, Karakaya (2010) conducted a qualitative study, collecting data from ELT teachers all around Turkey within the fulfillment of master arts degree. Questionnaires and interviews were administered to the teachers and findings of both interviews and questionnaires have indicated that teachers developed positive attitudes towards technology integration in language teaching but not similar attitudes their own use of technology in language instruction. The participants attributed that discrepancy to the lack of competency of integrating technology into language classes. Moreover, Albirini (2004) carried out a study to determine the attitudes of Syrian EFL teachers towards technology integration. The findings from a mixed methodology used in the study have indicated that teachers held optimistic attitudes towards the use of ICT tools in language classes.

Correspondingly, Arkin (2003) focused on the attitudes of English language instructors in Turkey. A questionnaire and interviews were administered to 93 instructors and data analysis has revealed out that teachers showed eagerness and positive perceptions towards the use technology integration into the language classes. Interestingly, this study has also reported that teachers are mostly prone to integrate technology for instructional goals rather than suggestions and expectations of CALL. Accordingly, Akçaoğlu (2007) conducted a study in order to determine why and how preservice and inservice teachers use technology in language teaching and it was found out that teachers showed the tendency to employ technology tools as teacher tools rather than student tools. Tuzcuoğlu (2000) carried out one of the initial studies in Turkey regarding the attitudes of teachers towards ICT integration into language classes in Eskişehir sample. The findings of that study also concluded that teachers held positive attitudes towards technology use in language teaching.

As for the attitudes of language learners towards technology integration, Şimşek (2008) dealt with the attitudes of freshman undergraduate students in Middle East Technical

University, particularly in reading courses. Data collected from 30 students through questionnaires and interviews has illustrated that students held positive attitudes highlighting that they could also learn at their individualized pace and keep track of their learning process in a flexible way. Students have also reported that they would opt for technology integrated classes more than face-to-face instruction. Similarly, Küçük (2009) carried out a study in Zonguldak Karaelmas University, preparatory school with 308 students. Questionnaires were implemented in the study and analysis has reported that student believed that CALL was efficient in language learning. Regarding the focal topic of this study, vocabulary learning, Esit (2011) investigated the attitudes of Turkish learners of English toward CALL integration into vocabulary learning and the findings showed that students reported more positive attitudes and perceptions while developing their vocabulary via CALL.

Additionally, Tunçok (2010) tackled with the perceptions of students on CALL practices in a case study. The researcher collected data from 120 students via a questionnaire and analysis results have showed that students mostly held positive perceptions on integrating of CALL. As for the effects of FATİH project on language learning in Turkey, Sayır (2014) targeted at determining the attitudes of students and teachers towards IWBs in Mersin. Both teachers and students were reported to hold positive attitudes towards IWBs and integration of CALL. The students also revealed that intergration of CALL via IWBs increased the motivation of learners. The review of literature also disclosed some studies reporting students with low anxiety when they were given computer-mediated instruction (Liu et al., 2003).

As the most common profits of computerized education, Devi (2005. p. 18) highlights “increased motivation, low anxiety, removal of affective filters”. Computer integration into education was also found out to provide the learners with opportunity to boost their self-esteem, occupational readiness and language abilities (Dunked, 1990). As an example, within the scope of a more exhaustive case study led by Nomass (2013), students of English Language Department in Al-Jabar-Al Gharbi University were asked to complete a questionnaire to explore their beliefs, attitudes and perceptions on computerized technology. The researcher presented the findings in a detailed way as given:

- 98 % of the students are convinced of the point that CALL can develop their English vocabulary
- 96 % of the students strongly think that CALL boosts their interaction in the classroom
- 96 % of the students are convinced of the view that CALL will sustain their writing skills
- 83 % of the students argue that CALL will enhance their listening skills
- 98 % of the students believe that the practices of CALL are more effective than other ways of learning
- 90 % of the students are convinced of the point that CALL will develop their speaking skill.

Shortly, CALL was found to give rise to increase in the success of vocabulary learning of students in light of the abovementioned studies in this chapter. Moreover, the previous research also revealed positive perceptions led by students and teachers toward CALL integration in EFL and ESL contexts. The surveys and interviews administered to the students and teachers indicated pedagogical suggestions about how to provide students with which strategies, techniques to learn vocabulary. The previous studies also suggested that CALL increased motivation for students bring learning autonomy and enthusiasm in EFL / ESL classes. As for the instrument used in this study, the previous research on Quizlet showed that Quizlet enabled the students to recall and retain vocabulary more frequently than traditional tools and methods. This study seems to shed light on the intersection between the strategies suggested by former studies and the learners' perceptions and preferred tasks and activities available on Quizlet rather than just proving the effect on word recognition.

3. METHODOLOGY

This study has a mixed design of Quantitative and Qualitative methods in order to obtain more reliable data for the research (Dörnyei, 2007. p. 24). Regarding the Quantitative method, an achievement test was administered in order to compare the results of students between experimental and control groups. As for quantitative data, surveys composed of multiple choice, checkbox, Likert-Scale items for perceptions of Quizlet on vocabulary learning were also administered with the aim of getting deeper insights of students and teachers in experimental group. The findings were analyzed using statistical tools like SPSS. Qualitative part of this study involved open-ended questions in the survey and focus group interviews administered to 8 teachers who used Quizlet during the implementation process to reach at detailization of their perceptions. The findings of Qualitative part were analyzed in a descriptive format.

This chapter includes the design of the study with the piloting phase, the participants taking part in the study, the details of implementation and data collection processes and tools used throughout the study.

3.1. Piloting

Before implementing the actual study, the researcher held a piloting for the instruments. “The piloting phase of any study is strictly recommended in the literature whether it is a survey, interview, questionnaire, test so that researchers have the chance to manipulate before starting the primary study regarding the format, language, length and practicality etc.” (Brace, 2004. p. 163).

Bearing the essential suggestion in mind, the pilot study was conducted to examine whether achievement tests, surveys and interviews would call for any interruption etc.

3.1.1. Achievement test

The researcher prepared an achievement test composed of 50 multiple choice questions on vocabulary comprehension on Google Forms and sent this test to 5 of his colleagues for proof-check via WhatsApp and e-mail. His colleagues gave feedback to the

researcher regarding accuracy, wording (See, Figures 1, 2, 3). In light of the feedback, the researcher revised the test.



Figure 1. Peer review example 1



Figure 2. Peer review example 2



Figure 3. Peer review example 3

After revising the achievement test, the researcher administered the piloting phase via social network, particularly Facebook groups like English Bee, Dyned Türkiye, Isparta ELT and his acquainted colleagues on WhatsApp. 183 students responded in the online achievement test in different cities of Turkey. After students responded, the test was analyzed and the pilot test' reliability score was found to be .93.

3.1.2. Survey on students' perceptions

In addition to the achievement test, the researcher also carried out piloting of a survey on perceptions of the students toward Quizlet. The survey, prepared in the native language of participants on Google Forms, includes 2 main parts: Evaluation of Quizlet Features by the participants, and students' Perceptions of Quizlet. The survey employed 25 multiple-choice items and 18 items with Likert Scale ranging from 1-Strongly Disagree to 5-Strongly Agree in the mother tongues of participants. The survey was analyzed as for reliability and it is reliable, replicable and consistent since reliability of survey was found to be .79 as illustrated in Table 2.

Table 2. Reliability analysis of perceptions survey (students)

Survey (43 Items)	Croanbach's Alpha
	.79

3.1.3. Survey on teachers' perceptions

The survey prepared by the researcher himself was composed of only 1 Section with 8 items revolving around the perceptions of teachers on Quizlet Effects. The whole survey involved 1 multiple choice, 3 open-ended, and 4 checkbox items.

3.1.4. Focus group interviews

The researcher finally conducted a piloting of the focal interview with one colleague before administering the interview to 8 teachers who used Quizlet as a means to teach vocabulary to the students placed in the experimental group.

3.2. Participants

This study was conducted within a national eTwinning project, called eTwinning English Olympics, co-founded by FATİH TOY (the researcher, eTwinning Ambassador) and Tuğba SAĞLAM (ELT teacher and eTwinning ambassador). The project involved teacher partners from almost all the cities in Turkey and this project intended to integrate ICT tools like padlet, quizlet, quizizz, actionbound into the the English classes at 8th grade. Out of the students over than 3000 all around Turkey, it was planned to involve 200 students in this study from different regions in Turkey, 100 in experimental group and 100 in control group. The ages of the participants ranged between 13 and 14 since they were 8th graders in secondary school. Distributions of participants' gender were indicated in the Table 3 and Table 4 for each group.

Table 3. Distribution of participants' gender (experimental group)

GENDER	FREQUENCY (F)	PERCENTAGE (%)
Female	60	% 60
Male	40	% 40
Total	100	100.0

Table 3 shows that study involved 60 female students and 40 male students in experimental group. This can be viewed somewhat as an equal distribution.

Table 4 . Distribution of participants' gender (control group)

GENDER	FREQUENCY (F)	PERCENTAGE (%)
Female	55	% 55
Male	45	% 45
Total	100	100.0

According to Table 4, Control group included 55 female students and 45 male students. As Table 3 and Table 4 show, both groups have almost equality regarding the gender of participants.

3.3. Data Collection Process

This section will cover the Implementation Process of the study by giving information about the experimental instrument, Quizlet. Data Collection will follow Implementation Process.

3.3.1. Implementation Process

This study has been a component of a national eTwinning project called eTwinning English Olympics. The project planned to integrate Web 2.0 tools for vocabulary instruction within the curriculum of 8 Grade. All the teachers employed in both governmental and non-governmental schools are always asked to take part in eTwinning projects and YEĞİTEK sends official document to the Provincial Directorates of Education in all 81 provinces to encourage the teachers to attend eTwinning projects (See, Appendix A). Based on this official text, the teachers are only supposed to receive consents from the parents of learners to include the students in the project.(See, Appendix B). Among more than 3000 students and more than 100 teachers taking part in eTwinning English Olympics project, the researcher chose the volunteer teacher partners and students as study participants. The experimental group teachers and students were also participants of eTwinning project but teachers and students in control group were found via the researcher's social media network. The participants in both experimental and control groups were asked if they accepted to take part in the study or not. Their consents were also taken via Facebook. The study started in early April 2018 with Pre-Test of achievement after conducting the piloting phase of all instruments throughout the preceding months, February-March 2018. During the experimentation period, the students used Quizlet in the class and outside the class. After the experimentation, experimental group students took a survey of perceptions toward the effects of Quizlet. Lastly, 10 of teachers in experimental group were also asked to complete a survey of perceptions and 8 of these teachers were finally interviewed for detailed discussion based on their responses in the survey.

Quizlet

This study intends to experiment Quizlet on vocabulary learning of students. Quizlet is mostly used by teachers and students as flashcards platform to teach / learn vocabulary effectively. Both teachers and students can prepare the vocabulary sets as flashcards and share these sets with millions of people all around the world. Teachers can also create classes, include their own flashcard sets in these classes and add their students into these classes and enable their students to study vocabulary by themselves at their individualized pace via the following tasks categorised as “study” and “play” mode (See, Figure 4).

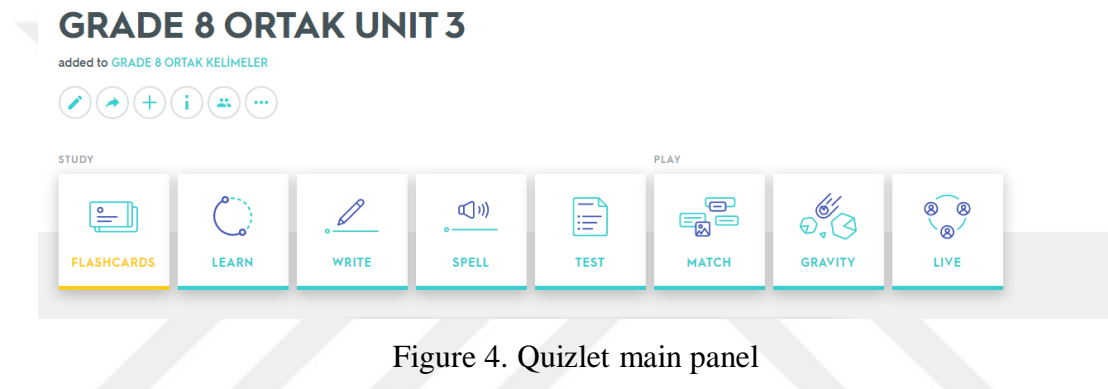


Figure 4. Quizlet main panel

The Study group includes:

The Flashcards are online vocabulary sets enabling the students to study vocabulary with the definitions of the mother tongue or target language or visuals. Students can also hear the pronunciations of the words as frequent as they would like. The Flashcards are also printable (See, Figure 5).

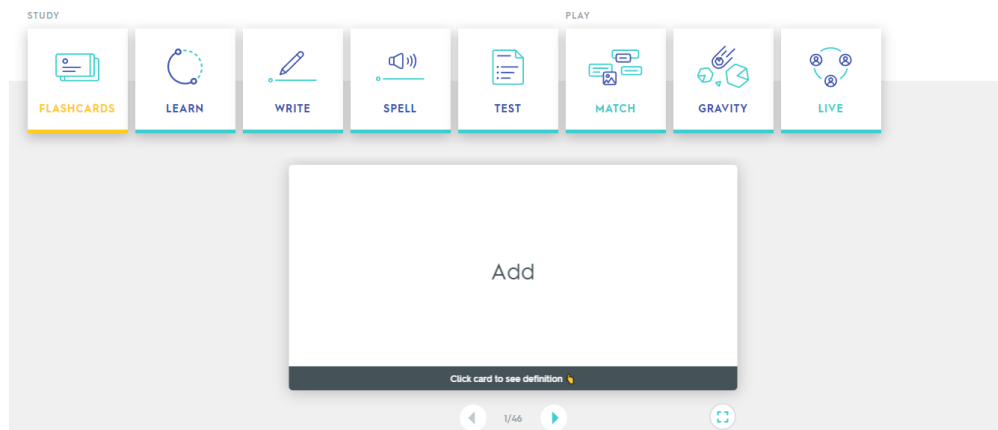


Figure 5. Flashcard activity on quizlet

Learn activity presents learners with the opportunity to practice the words by writing, listening, matching gradually (See, Figure 6).

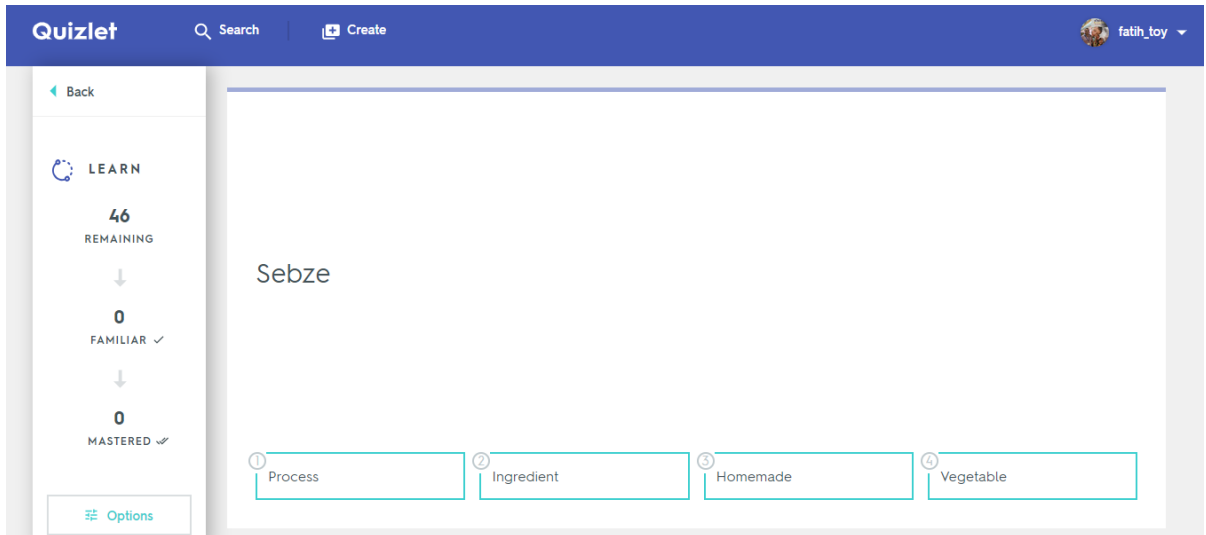


Figure 6. Learn activity on quizlet

Write activity enables the learners to write the meaning of target word in their mother tongue or vice-versa (See, Figure 7).

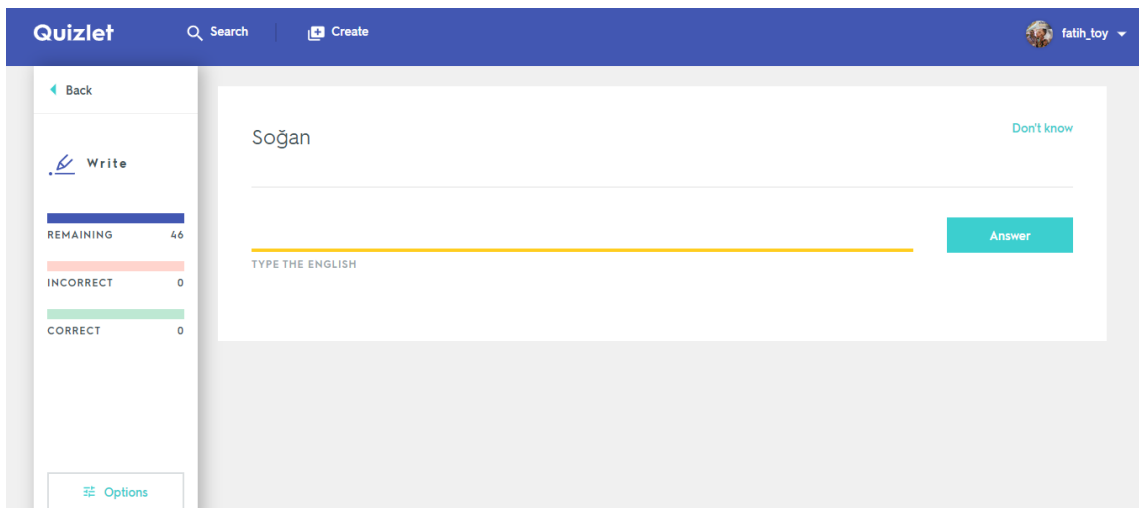


Figure 7. Write activity on quizlet

Spell activity enables the learners to write the correct form of any words after they listen pronunciation of the target words with their counterparts in first language (L1) (See, Figure 8).

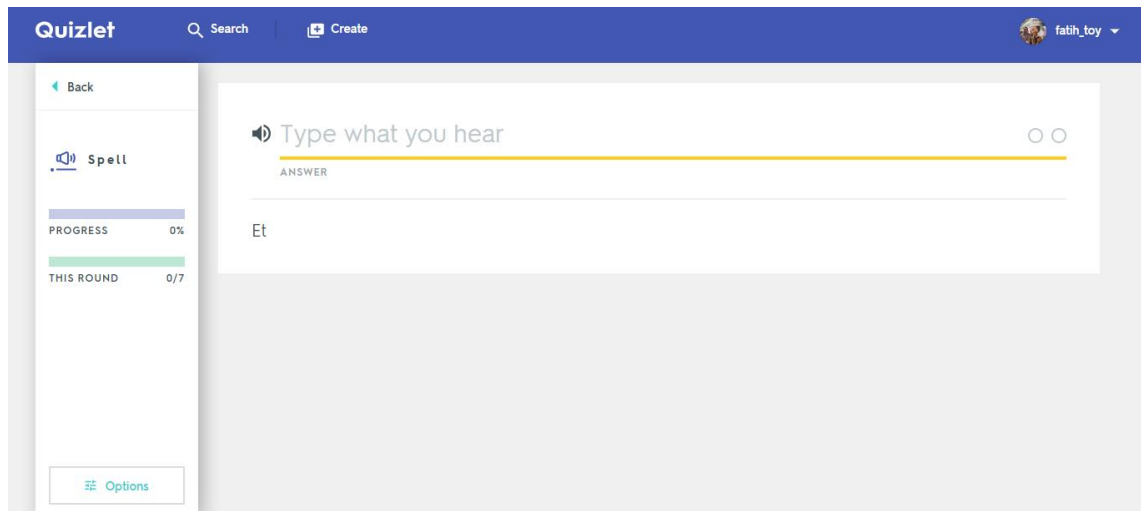


Figure 8. Spell activity on quizlet

Test activity enables the learners to see what they have learnt or not via written, matching, true-false, and multiple choice modes. The students can decide on the number of the words to be practiced on their own. The test mode is also printable (See, Figure 9).

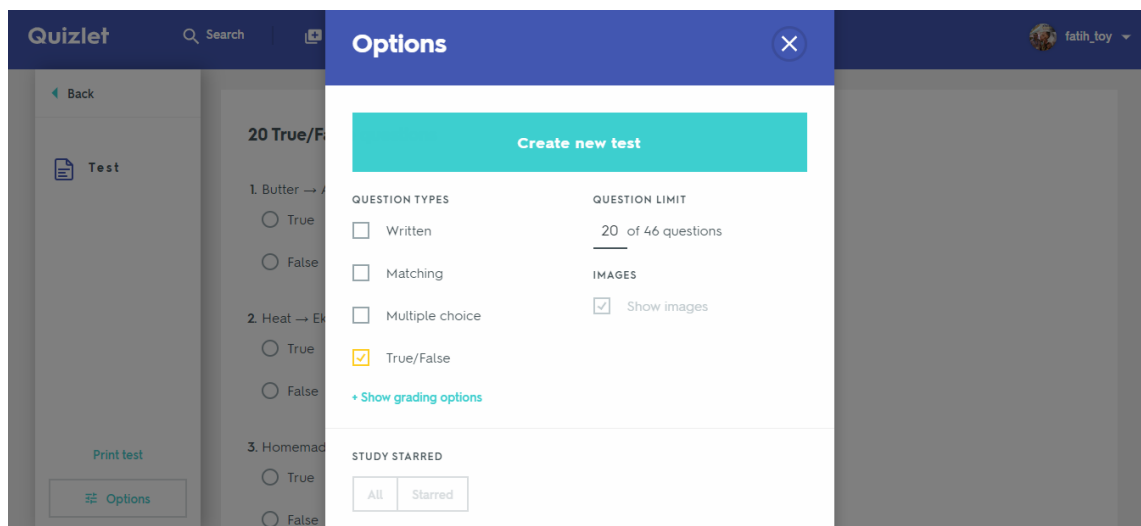


Figure 9. Test activity on quizlet

The Play Group includes;

Match activity enables the students to match the words of target language with their counterparts in mother tongue of students or pictures illustrating the meanings of target words in a challenging mode by dragging the words. The system ranks the students comparing their pace to other students. Students can see their rank among all the students playing matching according to their paces. Students firstly try to break their records and surpass the other students in an enjoyable way motivating the learners for further practice. This activity seems the only competitive part of Quizlet (See, Figure 10).

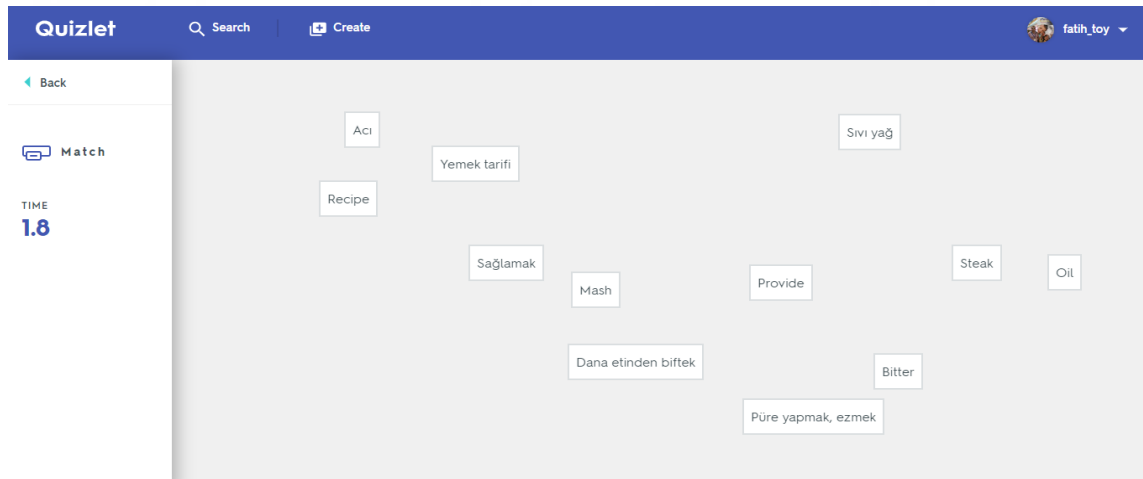


Figure 10. Match activity on quizlet

Gravity activity enables the students to write the correct forms of words in target language when they see the meanings in L1 in a time period or vice-versa. Students start this activity in the first level and they proceed their levels according to their performances (See, Figure11).

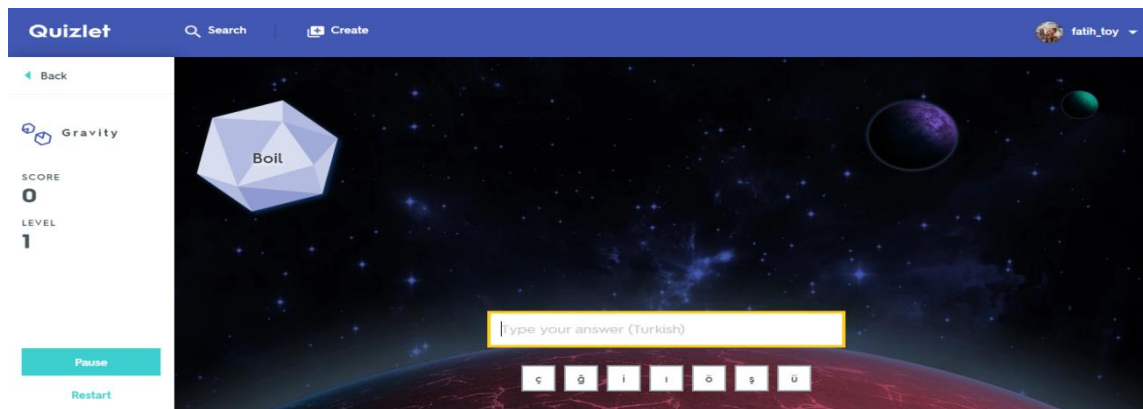


Figure 11. Gravity activity on quizlet

The *Live* activity enables the students to work individually and cooperatively in a group at the same time. Teachers can give Live codes or QR codes to the students and students sign in their Quizlet accounts and click on the Live link and practice the words (See, Figure 12).

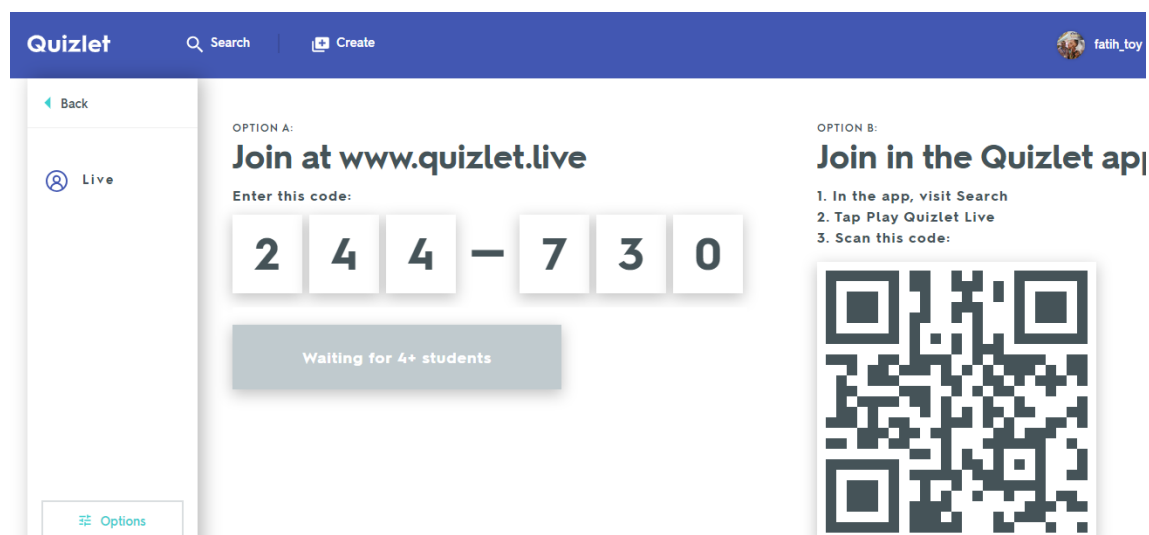


Figure 12. Live activity on quizlet

The main study started in April with the Pre-Test of Achievement administered to both groups of learners with the aim of determining the level of learners. After the Pre-Test, learners in experimental group received vocabulary instruction using Quizlet while those in control group were exposed to classical teacher lecture vocabulary instruction (See Figures 13, 14). Control group students were subject to teacher lecture vocabulary instruction within the realm of curriculum. Their teachers made use of coursebook in terms of activities like making the students note down the word lists. After students were given word lists, they were expected to complete the tasks in the coursebook using those words and they were also left alone themselves to practice vocabulary.



Figure 13. Quizlet practice session 1



Figure 14. Quizlet practice session 2

Both groups were given vocabulary words included in the curriculum of 8 Grade English Course, Units 8-10. These units were chosen because only those units were left in the time of actual study. 12 teachers in experimental group also took online seminars led by researcher on how to use Quizlet so that they guided the students. In addition to achievement test, experimental group learners also were given a survey on their perceptions of Quizlet. The study lasted for 8 weeks between early April and the late May, 2018. Post Test of Achievement was administered to both groups of participants at the end of May. The learners in experimental group also took a survey on the perceptions of Quizlet. Furthermore, 8 teachers of experimental group also were asked

to fill in a survey on their attitudes and perceptions towards Quizlet and these teachers also took part in individual focal interviews with the researcher with the aim of getting teacher insights into their experiences with ICT integration and particularly Quizlet in this study. All the tests and questionnaires prepared on Google Forms were sent to learners and teachers via WhatsApp, Facebook Group posts, Messenger messages.

3.3.2. Data collection tools

This study employed an achievement test on vocabulary learning. After the experimentation period ended, surveys of perception were used to reach data. Finally, a focal interview was administered to teachers to obtain deeper insights for their responses in the survey.

3.3.2.1. Achievement test

The researcher created the achievement test and it covered the Units 8-9-10 in the coursebook. As the researcher also taught English to 8 graders, he was mostly informed about the English Course curriculum of 8 Grade led by MoNE. The achievement test on vocabulary was prepared on Google Forms, and it was composed of 50 Multiple Choice Items (MCI) due to that MCIs can be administered to large groups of students in shorter time periods, scoring and evaluation can be completed just after the administration of the test and students can get immediate feedback favoring both teachers and students (Haladyna, Downing, & Rodriguez, 2002; Weiss et al., 2006).

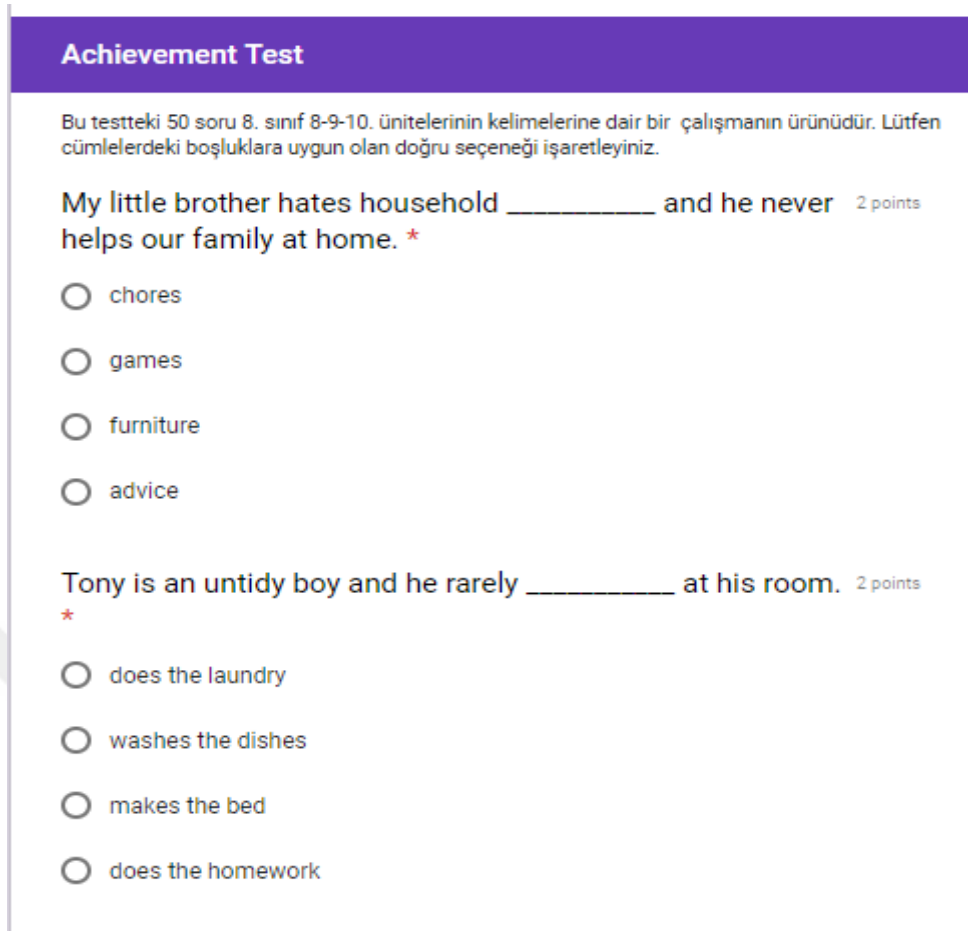


Figure 15. Examples of achievement test items

After MCIs were prepared by the researcher, they were reviewed by 5 different English teachers due to the point that peer review was highlighted as “support, role of devil’s advocate, challenging the researchers” by Creswell and Miller (2000, p. 6). After being piloted, the achievement test was analyzed for reliability. The Test was administered to learners in both control group and experimental group as Pre-Test in the beginning of the study and results of Pre-Test were analyzed by conducting a T-Test. No significant difference was found between 2 groups (See, Table 5).

Table 5. Pre-test means of experimental and control groups

Group	N	\bar{X}	Sd	df	t	P
Experimental	100	71.34	19.05	198	.48	.63
Control	100	70.10	17.02			

Additionally, a Post-Test was implemented at the end of the study as online again, Google Forms. 100 learners in each group, totally 200 students, took the tests throughout the study.

3.3.2.2. Survey on perceptions

In addition to achievement test, experimental group students were also asked to complete a survey on their perceptions towards ICT use, particularly Quizlet in this study. This survey was administered to the students at the end of the main study. The survey, prepared on Google Forms, includes 2 main parts, Evaluation of Quizlet Features by the participants, and students' Perceptions of Quizlet. Evaluation of Quizlet Features were composed of 25 multiple choice and checkbox items whereas Perceptions section included 18 items formed in Likert Scale, 1-Strongly Disagree,5-Strongly Agree (See Appendix E, Figure 16). Since the literature did not include any scale or specific questionnaire on Quizlet use, the content of survey was developed by the researcher in the native language of participants The survey was analyzed as for reliability and it is reliable, replicable and consistent since the Cronbach's Alpha illustrated as .79.

1. Quizlet öğrencinin..... yönünden kelime hazinesini zenginleştirmesine yardımcı olur. (Geçerli tüm seçenekleri seçebilirsiniz) *

Check all that apply.

- Yazma
- Okuma
- Konuşma
- Dinleme

2. Quizlet'in kullanımı son derece kolaydı *

Mark only one oval.

	1	2	3	4	5	
Kesinlikle katılmıyorum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Kesinlikle katılıyorum

Figure 16. Examples of perceptions survey questions

3.3.2.3. Teacher survey

In addition to achievement tests and survey on perceptions of students towards Quizlet use for vocabulary learning, the researcher also employed survey for 10 teachers whose students took part in the experimentation in order to see how teachers perceived Quizlet in terms of students' vocabulary learning. The survey prepared by the researcher himself was composed of only 1 Section with 8 items revolving around the perceptions of teachers on Quizlet Effects. The whole survey involved 1 multiple choice, 3 open-ended, short answer items and 4 checkbox items (See Appendix F, Figure 17).

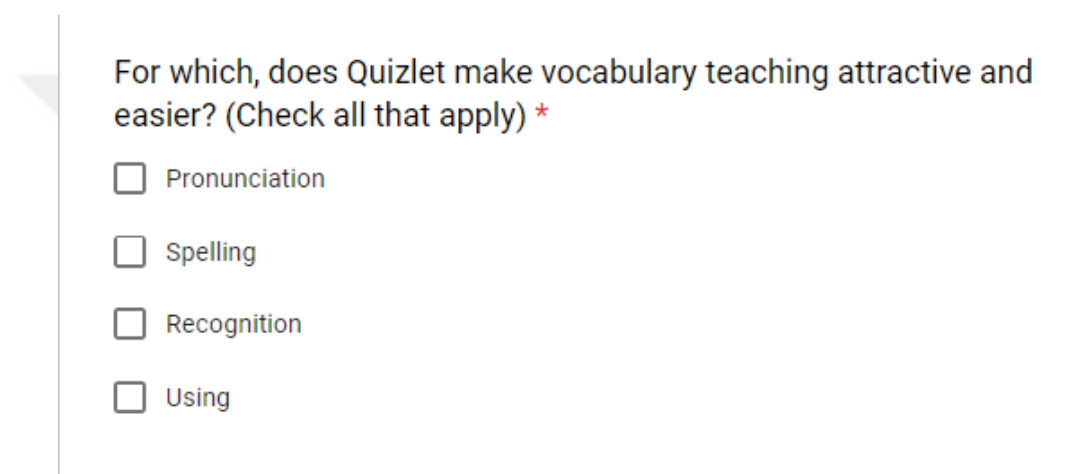
The image shows a screenshot of a survey question. The question text is "For which, does Quizlet make vocabulary teaching attractive and easier? (Check all that apply) *". Below the question are four checkbox options: "Pronunciation", "Spelling", "Recognition", and "Using". Each option has an empty checkbox to its left. The entire survey content is enclosed in a light blue border with a grey arrow pointing to the left on the top-left corner.

Figure 17. Question examples of perception survey for teachers

3.3.2.4. Focus group interviews

As the last tool, the researcher also implemented focal interviews with 8 teachers who also completed the perceptions survey in order to obtain detailed insights into teachers' perceptions towards Quizlet use while teaching vocabulary. In the literature, the interview is deemed as an efficient means to have deeper insights into someone's experiences, opinions (Lambert, 2012). Open-ended interview questions targeted detailed discussion of responses on Quizlet elicited by teachers (See, Appendix G, and Figure 18). The interview focused on the detailed discussion of responses of teachers on Quizlet items obtained in the survey. The interviews can be conducted as face-to-face meetings, phone calls and written sessions. The interviews were organized via phone calls and interviews were recorded via Voice Recorder of laptop computer.

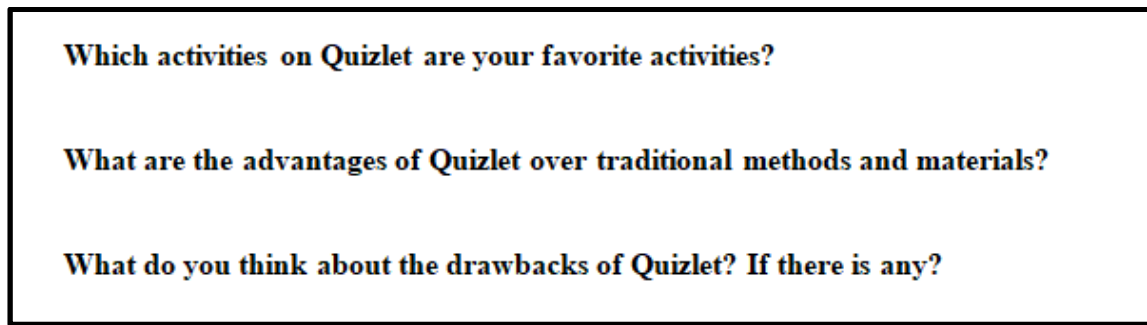


Figure 18. Examples of interview questions

3.4. Data Analysis

The outcomes of achievement test administered to both groups were analyzed. Firstly, tests for Normality were implemented regarding the findings of Pre-Test and Post-Test. It is essential that skewness and kurtosis values range between +2 and -2 for normal distribution. The skewness and kurtosis values for Pre-Test findings were found out as 0.28 and 0.72 respectively. Correspondingly, the skewness and kurtosis values for Post-Test were also obtained as 0.89 and 0.46 subjectively. All these values point out that our findings were normally distributed. In addition to tests for normality, the Pre-Test results were analyzed for the comparison of groups, control and experimental, using Independent Samples T-Test. After administering the achievement test as Post-Test at the end of the study, the results were analyzed again to compare the performance of both groups. The results of achievement tests were also analyzed within each group itself to determine the progress in a comparative mode using Paired Samples T-Test.

The Survey of Perceptions was also analyzed in order to find out the effects of Quizlet. Descriptive frequency analysis was carried out for 25 items included in the survey. Arithmetic means for 18 items were calculated via SPSS Statistics 20.

Lastly, 10 teachers who taught the students by means of Quizlet were asked to complete a survey including various items such as multiple choice, checkbox and open-ended questions. Subsequently, 8 out of these teachers were also invited to take part in focal interviews with open-ended questions in order to get deeper insights into their responses in the surveys. The responses of teachers for multiple choice and checkbox items were analyzed in terms of frequency and

The responses of teachers for open-ended items in the surveys and the focal interviews, which were conducted in the light of the survey responses by teachers, were analyzed through descriptive analysis. The responses were categorized and concrete examples out of focus group interviews were presented under categories.



4. RESULTS

This chapter will indicate the results of study regarding the achievement in vocabulary learning of both groups, the effects of Quizlet on strategies used by students in order to learn vocabulary, and lastly perceptions of both students and teachers towards Quizlet.

4.1. Achievement in Vocabulary Learning

This section deals with the results of Achievement Post Test regarding both groups. The scores of both groups will be tackled between groups and within the groups.

Table 6. Post-test means of experimental and control groups

Group	N	\bar{X}	Sd	df	t	P
Experimental	100	82.34	17.76	198	4.97	.000
Control	100	66.06	27.48			

As it is seen in the Table 6, the arithmetic means of the results of experimental and control group are subjectively; $\bar{X}=82.34$ and $\bar{X}=66.06$. Arithmetic means of both groups' Post-Test scores were analyzed through T-Test for Paired Samples and it has revealed out a significant difference between both groups, favoring the experimental group ($t=4.97$; $p<0.05$). Based on these findings, learners in experimental group receiving vocabulary instruction by means of Quizlet were found as more successful than those in control group receiving the teacher lecture type of vocabulary instruction. Henceforth, Quizlet appears to enhance the vocabulary learning of students.

Table 7. Paired samples t-Test results of experimental group

Test	N	\bar{X}	Sd	df	t	P
Pre	100	71.34	19.25	99	4.19	.000
Post	100	82.34	17.76			

As Table 7 shows, the arithmetic means of the results of Pre-achievement and Post-achievement Test scores within experimental group are respectively; $\bar{X}=71.34$ and $\bar{X}=82.34$. Arithmetic means of both Pre-Test and Post-Test scores were analyzed

through T-Test for Paired Samples and it has revealed out a significant difference between both tests, indicating the positive effect of Quizlet ($t=4,19$; $p<0,05$). The scores in Post-Test are found higher than they were in Pre-Test. Based on these findings, Quizlet support has developed the learners' vocabulary learning performance.

Table 8. Paired samples t-Test results of control group

Test	N	\bar{X}	Sd	df	t	P
Pre	100	70.10	17.02	99	1.21	.228
Post	100	66.06	27.48			

As it is indicated in the Table 8, the arithmetic means of the results of Pre-achievement and Post-achievement Test scores within Control group are respectively; $\bar{X}=70.10$ and $\bar{X}=66.06$. Arithmetic means of both Pre-Test and Post-Test scores were analyzed through T-Test for Paired Samples, and it has been found out a slight difference between both tests, indicating the negative effect of traditional instruction type of vocabulary instruction ($t=1.21$; $p>0.05(0.228)$). The scores in Post-Test are found lower than they were in Pre-Test. Based on these findings, classical didactic type of vocabulary instruction does not affect learners' vocabulary learning in a positive direction.

4.2. The Effects of Quizlet on Students' Perceptions

In addition to Achievement tests, learners in experimental group were also asked to complete a survey about the effects of Quizlet on their vocabulary learning. Experimental group students took this survey. The first part of the survey included 25 items and second part involved 18 items. Table 9 shows the items of first part.

Table 9. Items in survey of the effects of quizlet on students' perceptions

Number	Item
1	Does Quizlet significantly help you learn vocabulary?
2	Do you like "Learn" activity on Quizlet?
3	Do you like "Flashcards" on Quizlet?
4	Do you like "Write" on Quizlet?
5	Do you like "Spell" on Quizlet?
6	Do you like "Test" on Quizlet?
7	Do you like "Matching" on Quizlet?
8	Do you like "Gravity" on Quizlet?
9	Do you like "Live" on Quizlet?
10	Does individualized practice on Quizlet contribute your vocabulary learning?
11	Does tracking individual progress on Quizlet contribute your vocabulary learning?
12	Does Quizlet entertain you while learning vocabulary?
13	Does Quizlet provide a flexible setting for learning?
14	Does Quizlet lower anxiety?
15	Does Quizlet contribute your vocabulary learning via evaluating you with your own progress rather than comparing to others?
16	Does Quizlet bring diversity for vocabulary learning?
17	Does Quizlet increase your motivation?
18	Does Quizlet attract the pronunciation for you?
19	Does Quizlet attract the writing for you?
20	Does Quizlet enhance word recognition?
21	Does Quizlet enable the use of vocabulary?
22	Does Quizlet help you develop your writing skill?
23	Does Quizlet help you develop your reading skill?
24	Does Quizlet help you develop your speaking skill?
25	Does Quizlet help you develop your listening skill?

These items were analyzed for frequency. The frequency analysis of these items in the survey is shown in the Tables 10-14.

Table 10. Frequency analysis of students' responses on item 1

Item	Frequency (F)	Percentage (%)
Maybe	3	3.00
No	20	20.00
Yes	77	77.00
Total	100	100.00

As Table 10 presents, majority of the students in experimental group (N=77) responded “Yes” for item 1 which is worded as “Does Quizlet significantly help you learn vocabulary?” The findings indicate that most of the students think that Quizlet seriously helps them learn vocabulary.

Table 11. Frequency analysis of students' responses on items 2-9

Item	Frequency(F)	Percentage (%)
Matching	67	66.30
Test	57	56.40
Learn	43	42.60
Write	40	39.60
Flashcards	39	38.60
Gravity	32	31.70
Spell	31	30.70
Live	20	19.80

Items 2-9 refer to the favorite activities of students on Quizlet platform and app. As it is depicted in the Table 11, Matching (F=67) activity is the most favored, followed by Test (F=57) which is followed by Learn (F=43) whereas Spell (F=31) is the least favored followed by Gravity (F=32) and Flashcards (F=39).

Table 12. Frequency analysis of students' responses for items 10-17

Item	Frequency (F)	Percentage (P)
Enjoying vocabulary learning	74	74.00
Tracking Individual progress	55	55.00
Individual paced learning	53	53.00
Increasing motivation	44	44.00
Diversity of vocabulary learning in the class	40	40.00
Flexible learning	38	
Evaluating students to their individual performance rather than ranking	36	38.00
Increasing motivation	29	36.00
		29.00

As it is given in the Table 12, students mostly think learning vocabulary via Quizlet as enjoyable (F=74), the option of tracking individual progress (F=55) and individual paced learning (F=53) whereas they leastly report reducing anxiety (F=29), evaluation of students to their individual performance rather than ranking within a group (F=36), flexible learning (F=38) respectively.

Table 13. Frequency analysis of students' responses for items 18-21

Item	Frequency (F)	Percentage (%)
Word recognition	73	73.00
Writing	56	56.00
Pronunciation	50	50.00
Word Use	47	47.00

As Table 13 points out, students' responses for Items 18-21 which reveal out Quizlet enables which one(s) attractive for vocabulary learning. Word recognition (F=73) is reported with the highest frequency, followed by Writing (F=56), Pronunciation (F=50) and Word Use (F=47) respectively.

Table 14. Frequency analysis of students' responses for items 22-25

Item	Frequency (F)	Percentage (%)
Reading	76	76.00
Speaking	63	63.00
Writing	47	47.00
Listening	39	39.00

Table 14 illustrates the Items 22-25 dealing with the opinions of students about which language skill(s) is / are sustained for learners to develop their vocabulary. Reading (F=76) is found out with the highest frequency, followed by Speaking (F=63), Writing (F=47) and Listening (F=39) subjectively. Based on these findings, students mostly think that Quizlet helps them develop their reading.

4.3. Perceptions

This section includes the results of Perception Survey for students and analysis of Teachers' responses for Perception Survey and focal interviews.

4.3.1. Perceptions of learners

The second part of Survey on Perceptions of Students indicates 18 items formed with Likert Scale, ranging 1 to 5. (1-Strongly Disagree and 5-Strongly Agree). Table 17 shows items in the second part of the survey.

Table 15. Items of students' perceptions of quizlet on vocabulary learning with arithmetic means

Number	Item	Arithmetic means
26	Quizlet was very easy to use	3.60
27	Quizlet enabled me to study vocabulary regularly.	3.90
28	I prefer ICT tools like Quizlet to study vocabulary rather than other classical materials, methods	4.35
29	Quizlet helps my concentration while studying vocabulary	4.60
30	I prefer using Quizlet in other courses as well as English	3.55
31	It was enjoyable to use Quizlet in the class	4.15
32	It was also enjoyable to use Quizlet out of the class	3.85
33	Quizlet was practical in the sense that students could access Quizlet in both web site and application stores	4.45
34	It was great to use Quizlet offline as well as online although it did not show individual progress due to offline study	4.35
35	I have started to feel myself more ready for my classes, exams since I started to use	4.55
36	Quizlet was useful because it evaluated my progress according to my individual performance and pace	3.40

Table 15. (Continued)

Number	Item	Arithmetic means
37	Quizlet was very motivating since it evaluated my progress according to my individual performance and pace rather than comparing to my peers in the class	4.00
38	Quizlet keeps my vocabulary learning more permanent when it continuously presents me with my missed words since it evaluates my progress according to only my individual performance	4.05
39	Quizlet is very useful since it does not only show Turkish meanings of target words but it also supports the meanings with pictures	3.70
40	Quizlet is very motivating because it enables me to prepare my own tests, activities, select the type and number of the questions, control all the activities on my own	4.50
41	Quizlet helps me pronounce the words accurately	3.95
42	Quizlet helps me use words a lot	3.65
43	I strongly recommend Quizlet to my peers	4.10

Both arithmetic means of responses for each item and overall means for all items were obtained. Tables 15 and 16 indicate separate arithmetic means for each item and overall arithmetic means for all items respectively.

Table 15 displays the arithmetic means of students' responses for the items 25-43 dealing with their perceptions via the Likert-Scale in the last section of the survey.

Analysis of items 26 and 27 has revealed out that students nearly agreed on the easiness of the use of Quizlet and that student agreed on that Quizlet made the students study the vocabulary regularly. Moreover, arithmetic means of items 28 and 29 suggest that

great majority of students show proneness to use Quizlet rather than other classical materials and methods and that students mostly stated they strongly agree on that Quizlet helps concentration while studying vocabulary.

Analysis of item 30 has pointed out that that students almost agreed on the use of Quizlet in other courses as well as English. Likewise, the findings of items 31 and 32 has revealed out that students favored the use of Quizlet both in the class and out of the class.

Having analyzed items 33 and 34, it is obvious that most of the respondents agreed on the practicality of Quizlet on both web site platform and as application as well as the option to use Quizlet offline mode even though it it does not show individual progress in this mode.

Analysis of items 35, 37 and 41 has suggested that most students almost strongly agreed on that Quizlet enabled them to become ready for the classes and exams. Majority of the students also reported Quizlet as very motivating because they are evaluated according to their individual performance rather than being compared to their peers. Quizlet was also reported as motivating since it provides the students with the opportunity to prepare their own tests, activities, select the type and number of the questions, control all the activities by themselves.

According to the analysis of items 36 and 40, students neither agreed nor disagreed on the usefulness of Quizlet regarding its evaluation the students' progress in light of their individual progress, pace. Students were found to report the usefulness of Quizlet in terms of presentation of visuals for meaning of the words less frequent than other items.

Analysis of items 38 and 43 has indicated that students agreed on recommendation of Quizlet to their peers and they also reported that Quizlet has kept their vocabulary learning more permanent when it continuously presents them with their missed words since it evaluates their progress according to only their individual performance. As for the effects of Quizlet on vocabulary use and pronunciation, the analysis of items 41 and 42 has presented that nearly majority of the students reported that Quizlet helped their pronunciation and use of words respectively.

Table 16. Overall means for students' perceptions of quizlet

Survey on Students' Perceptions	Overall Means
	4.03

Table 16 suggests that students mostly report positive perceptions about the effects of Quizlet on their vocabulary learning.

4.3.2. Perceptions of teachers

The researcher also conducted a survey and focus group interview with teachers whose students were in the experimental group. 10 teachers completed the survey and 8 teachers were included in the focus group interviews (See, Table 17). Focus group interviews intended to obtain deeper insights of teachers' responses for the items in the survey, so that interviewees were asked to respond the survey questions in more details. This section also gives information about the findings of the interviews regarding the questions in the survey.

Table 17. Items for survey on teachers' perceptions of quizlet

Number	Item
1	What are the prominent effects of Quizlet on students' vocabulary learning?
2	Does Quizlet help students learn vocabulary? (Yes), (No), (Maybe)
3	What are the common advantages of Quizlet over traditional vocabulary learning / teaching methods and materials?
4	Which activities do you favor on Quizlet as a teacher? -Learn -Flashcards -Write -Spell -Test -Matching -Gravity -Live
5	What are the drawbacks of Quizlet for the students?

Table 17. (Continued)

Number	Item
6	To you, which of the followings does Quizlet promote regarding vocabulary teaching / learning? -Individual Paced Learning -Tracking Individual Progress-Enjoying Vocabulary Learning -Flexible Learning -Reducing Anxiety -Evaluating Students to their individual performance rather than ranking -Diversity of vocabulary learning in the class -Increasing motivation
7	For which, does Quizlet make vocabulary teaching attractive and easier? -Pronunciation-Writing -Word Recognition -Word Use
8	Quizlet enables students to develop their... skills. Writing Reading Speaking Listening

4.3.2.1. Survey in quantitative results

This section includes the quantitative results of survey regarding the items 2,4,6,7,8.

Table 18. Frequency analysis of teachers' responses for item 2

Item	Frequency (F)	Percentage (%)
Maybe	1	10.00
No	0	0.00
Yes	9	90.00
Total	10	100.00

As the Table 18 shows, most of the teachers responded “Yes” for Item 2 asking whether they agree on that Quizlet helps students learn vocabulary (F=9). 90 % of the teachers think that Quizlet helps learners develop their vocabulary.

Table 19. Frequency analysis of teachers' responses for item 4

Item	Frequency(F)	Percentage (%)
Matching	10	100.00
Spell	8	80.00
Test	8	80.00
Gravity	6	60.00
Flashcards	5	50.00
Learn	4	40.00
Write	3	30.00
Live	1	10.00

Table 19 reveals out that all teachers favor Matching (F=10) as the best Quizlet activity followed by Spell (F=8) and Test (F=8) respectively. Teachers leastly favored Live (F=1) followed by Write (F=3) and Learn (F=4) consecutively.

Table 20. Frequency analysis of teachers' responses for item 6

Item	Frequency	Percentage (%)
Increasing motivation	10	100.00
Enjoying vocabulary learning	9	90.00
Individual paced learning	9	90.00
Flexible Learning	8	80.00
Diversity of vocabulary learning in the class	8	90.00
Reducing anxiety	7	70.00
Tracking individual progress	2	20.00
Evaluating students to their individual performance rather than ranking	1	10.00

As it is seen on Table 20, all the teachers think that Quizlet (F=10) increases motivation. Most of the teachers also think that Quizlet integrates vocabulary learning with entertainment and Quizlet enables the students with individual paced learning (F=9). Teachers leastly regard the evaluation according to the individual performance (F=1) rather than comparison, followed by tracking individual progress, lowering the anxiety respectively (F=2), (F=7).

Table 21. Frequency analysis of teachers' responses for item 7

Item	Frequency (F)	Percentage (%)
Word recognition	10	100.00
Pronunciation	7	70.00
Writing	6	60.00
Word Use	6	60.00

As Table 21 illustrates, teachers' responses for Item 7 which reveals out Quizlet enables which one(s) attractive for vocabulary learning. Word recognition (F=10) is reported with the highest frequency, followed by Pronunciation (F=7), Writing (F=6) and Word Use (F=6) respectively.

Table 22. Frequency analysis of teachers' responses for item 8

Item	Frequency (F)	Percentage (%)
Writing	8	80.00
Reading	8	80.00
Listening	8	80.00
Listening	6	60.00

Table 22 illustrates the Item 8 dealing with the opinions of teachers about which language skill(s) is / are sustained for learners to develop their vocabulary. 3 language skills, Reading (F=8), Writing (F=8) have been reported to have equal frequency. Speaking (F=6) has been found out to have the lowest frequency. Based on these frequency rates, teachers think that speaking is not sustained by Quizlet as much as the other skills are.

4.3.2.2. Qualitative results of teachers' surveys and interview

The Qualitative results of teachers' surveys and interviews were analyzed via descriptive analysis. The analysis of responses of survey and interview has found out following categories referring to concrete examples out of teachers' responses:

The first item in the survey and interview worded as "What are the prominent effects of Quizlet on Students' vocabulary learning" deal with the ideas of teachers about Quizlet

effects on teachers' vocabulary teaching and students' learning. This is an open-ended question and 10 teachers revealed out the primary effects of Quizlet like following referring to original sentences by interviewees:

✓ High level of motivation due to gamification blended with entertainment.

T1: Students enjoy using Quizlet and they do not need to apply other classical methods like writing with pencil, particularly matching activity attracts them. Diversity of games also attracts the students

T2: Students are not dependent upon the class program to study vocabulary thanks to Quizlet and this increases their motivation.

✓ More enjoyable learning at students' own pace

T4: Students can control the type of activities, choose the number and type of questions

✓ Learning in short time easily

T2: Students learn the meanings of the words more quickly than they did before

✓ Continuous exposure to pronunciation of target words via different activities on Quizlet

T5: Students can hear the pronunciation of the words whenever they want since Quizlet provides pronunciation in almost all activities.

✓ Autonomous learning due to Quizlet settings adaptable to individual preferences of learners

T7: Students' control of their individual performance and Quizlet settings in all the activities enable them to build their autonomy on vocabulary learning.

T8: Students can choose the type of test questions and they can even choose the words to be practiced, this is the individual control

✓ Teachers as well as students mostly favor matching.

T4: My students mostly do not go out in the breaks because they wait for their turn to play matching

T1: IWBs provided my students have the experience of gamification while using Quizlet for vocabulary learning, a gift of FATIH project

The third item in the survey and second question in interview deal with the ideas of teachers about advantages of Quizlet compared to classical materials and methods. This is an open-ended question and 10 teachers revealed out the primary profits of Quizlet over traditional methods and materials as:

✓ Quizlet attracts digital natives

T5: These students are crazy about technology and they are digital natives, digital kids

T7: Our students are more interested in technology than we are, as teachers.

✓ Quizlet poses memorization more enjoyable

T3: In the past, we could not memorize the words and we used different methods like word boxes etc. but Quizlet enables memorization amusing

✓ Quizlet presents interactive learning for students to practise the words

T1: Students can set the activities according to their performance and system gives immediate feedback

✓ Diversity of activities presented on Quizlet

T2: Students can choose the activity among Flashcards, Test, Learn, Matching, Gravity, Spell, Write etc

✓ Support for individual learning

T6: Quizlet provides the learners with the option to reinforce previously learned or missed words according to their individual progress. Learners can also decide on what they will practise with their selected activity.

T8: When students study vocabulary on Quizlet, as teachers we do not need to spend time on vocabulary learning at least for spelling and pronunciation

✓ Continuous repetition of missed words

T8: Students can see all the words in different activities more than once.

The fifth item in the survey and third question in interview deal with the ideas of teachers about limitations of Quizlet. This is an open-ended question and 10 teachers reported limitations of Quizlet as follows:

✓ Some students may not have facilities to access Quizlet

T1: Some students do not have PC or mobile devices and internet connection at their homes.

✓ Spending time on computers or mobile devices can be risky for health

T3: Students can misuse the permission to use computers or mobile devices from their parents.

✓ Some flashcards may have incorrect spelling or meaning

T6: Students can also prepare flashcard sets of vocabulary and these sets are used by other students.

✓ Speaking is not boosted as much as the other skills are

T2: Students cannot test their fluency and speaking performance.

✓ Vocabulary learning cannot go beyond pronunciation, recognition, writing

T8: Students cannot use the learned words in sentence level. They are just pronouncing, writing the words, this means that they are just recognizing the words.

✓ No contextual clue for words

T8: Students are not given any context to see and use the words. Target words should also be given in context.

Briefly, the findings of this study indicated that Quizlet increased the success of learners in vocabulary learning mostly for word recognition in reading and comprehension tasks. Both students and teachers were found to report the help of Quizlet for vocabulary learning. The findings of perception surveys administered to both students and teachers indicated that they developed positive perceptions toward the diversity of activities on Quizlet. The most common findings were found as enjoying Quizlet while learning vocabulary, tracking individual progress, individual paced learning, setting of flexible learning, increasing motivation. Word recognition and writing were found to be the most sustained aspects of vocabulary learning in light of the findings of surveys. Most of the learners ascertained that Quizlet mostly enhanced reading among language skills. The findings of survey for perceptions of the students have found that more than half of the students stated they agreed on the advantages of Quizlet as practicality, motivating, continuous learning, frequent exposure to pronunciation of the words, visual aids.

5. DISCUSSION & CONCLUSION

This chapter includes the discussion of the results of this study in relation to the former studies mentioned in the literature review. The discussion will be handled by answering the research questions in relation to the quantitative and qualitative findings of this study as sub-titles.

5.1. Does Quizlet Influence Vocabulary Learning Success of the Students?

This study included an experimentation period for control and experimental groups of learners for 8 weeks. Before starting the experimentation, T-Test for Independent Samples was conducted after administering achievement Pre-Test, and no significant difference was found out between two groups. The results of the post test showed a significant difference between control and experimental groups in accordance with the expectations of this study. The achievement test scores indicated that CALL integration, particularly Quizlet use within the scope of this study, increased the vocabulary learning achievement of the learners. Experimental group learners got higher scores than control group learners. Additionally, experimental group learners also increased their scores compared to their Pre-Test scores. Since the results of the survey also highlighted that students reported readiness and reduction of anxiety for the classes and exams, increase of achievement is not surprising. Experimental group students were also asked to practice vocabulary on their own with their preferred types of activities on Quizlet whereas control group students were not asked to use any different strategy apart from the traditional teacher led instruction. Unlike experimental group, control group students expectedly did not increase their scores in Post-Test, they were found out to lower their scores compared to their Pre-Test scores.

The abovementioned findings are both surprising and expected. It is surprising that Alshammari (2013) found out Quizlet did not influence the achievement of students for vocabulary learning compared to another tool, *The Shield*, an immersive video game based learning tool. However, it is also expected in the sense that Alshammari (2013) also revealed out that Quizlet was more effective on word recognition than *The Shield*, that converges with the findings of our study, as being one of the expected result. Accordingly, our findings are expected in the sense that students in an experimental

group using Quizlet were also found out to have higher achievement in the posttest (Bakla & Çekiç, 2017; Boyce, 2016). The results of this study implicating that technology integration is more effective than traditional instruction are also similar to the findings found out by Chien (2006), Kiliçkaya and Krajka (2010a) who carried out an experimental study to compare the effects of CALL on vocabulary instruction with traditional instruction with an achievement test.

Overall, Quizlet was found to have positive effects on students' achievement in vocabulary learning at least for word recognition, comprehension and reading in relation to the format of achievement test. This study has also revitalized the importance of using various strategies for vocabulary learning.

5.2. Which Activities on Quizlet Attract the Students for Vocabulary Learning?

The findings of the survey administered to the experimental group students regarding their favorite activities will be related to the suggestions of the previous studies regarding the vocabulary learning strategies. The survey results have disclosed that all students favored most of the activities on Quizlet. Learn, Flashcards, Matching, Test, Gravity, Write, Spell were opted by the respondents. As detailed before, all these activities require students to carry out different tasks on vocabulary development. Diversity of the activities enables learners to use different strategies while improving vocabulary.

In the light of the studies discussed in literature review, it does not sound surprising that students in this research did not merely opt for one activity to practice vocabulary. That students reported preferences for various activities coincides with the suggestion (Nation, 2005) that vocabulary learning should be designed by means of learner-centered approaches including audio-visual aids, pictures, flashcards beyonding mere memorization. The preferences of learners in this study are also regarded as aligned with categorization of vocabulary learning strategies as metacognitive, cognitive, memory and activation (Gu & Johnson, 1996). To clarify metacognitive strategies, Quizlet enables the students to select the words to practice and activate self-initiation since they can start any activity on Quizlet to practice words. Regarding cognitive

strategies, Quizlet provides the learners with the chance to favor the missed words online on the platform and note taking to repeat later on. As for memory strategies, Quizlet hosts visual aids, rehearsal mechanism to practice the same words recurrently.

The presence of various activities on Quizlet provides the learners with metacognitive strategies in the sense that they can decide on which /how / how often words to practice. The use of flashcards by means of audio-visual aids, repetition of words in Learn, Matching, Write, Test and Spell activities suggest that students employ rehearsal and encoding techniques under memory strategies

The learners' preferred activities which include audio-visual aids, pronunciation, and repetition in this study are not surprising to a considerable extent as Ma (2009) and Rashidi and Omid (2011) and Carvalho (2013) suggested vocabulary learning strategies like following:

- learners are prone not to study the word lists by memorizing
- learners opt for the emphasize on pronunciation by teachers rather than exposing them to heavy listening tasks
- learners preferred the presentation of vocabulary with the help of visual aids
- learners mostly show tendency to practice new words on their own at their individual pace.

To sum up, students favored the diversity of activities and strategies for vocabulary learning. The findings of the survey coinciding with the previous studies mentioned above have pointed out that students are inclined to learn vocabulary by means of diversity of learner centered approaches like presentation of vocabulary with visuals, practicing the vocabulary at their own pace, emphasis on pronunciation, different tasks on vocabulary instead of mere memorization. Henceforth, the diversity of Quizlet activities seems promising based on analysis of students' responses.

5.3. How Does Quizlet Help Students Learn Vocabulary?

The survey results in this study were analyzed through frequency analysis, and it was found out that great majority of learners were convinced of that Quizlet helped them

while developing vocabulary. As for deeper insights into how Quizlet helps the students learn vocabulary, the findings of this study have revealed out following profits opted by all learners:

- Individual Paced Learning
- Tracking Individual Progress
- Integrating vocabulary learning with entertainment
- Flexible Learning
- Lowering Anxiety
- Evaluating Students against their individual performance rather than ranking
- Diversity of vocabulary learning in the class
- Increasing motivation.

These results are similar to some research findings in the literature. Studies conducted by Kiliçkaya and Krajka, (2010a); Yousefzadeh, (2011) have also indicated that experimental group learners in their studies reported individual paced learning and tracking individual progress as benefits of technology integration into vocabulary learning. Bakla and Çekiç (2017) also highlighted individual learning mechanism as a crucial advantage of CALL in vocabulary learning. As for diversity of vocabulary learning activities in the class and integration of entertainment into vocabulary learning, this study has showed the similar results to findings by Horst, Cobb and Nicolae (2005), Nation (2005), Browne and Culligan (2008). Those researchers also found that students would make use of various strategies and materials thanks to interactive tasks, databases for vocabularies, quizzes, tests, individual vocabulary lists, and digital games.

In accordance with the format of the achievement tests held in this study and results of the learners in these tests, the findings which mixed methodology (Qualitative and Quantitative) obtained in the surveys highlighted that experimental group learners viewed Quizlet supporting their vocabulary development in terms of word recognition with the highest frequency and followed by writing, pronunciation and word use respectively. These findings are reciprocal with the studies revealing out word recognition outweighing pronunciation and word use (Alshammari, 2011; Boyce, 2016). Surprisingly, students reported ‘lowering anxiety’ effect of Quizlet with the lowest

frequency unlike the study in which learners showed low anxiety while using technology in language classes (Liu et al. 2003).

Shortly, Quizlet does not only appear to help students learn vocabulary to sustain word recognition, comprehension and reading, but it is also likely to provide the learners with different strategies of vocabulary learning. Students also seem to learn and practice their vocabulary in an enjoyable flexible learning context at their individual pace with low anxiety.

5.4. What Do Teachers and Students Think about the Effects of Quizlet on the Development of Any Language Skill for Students?

In order to determine which language skill(s) can be sustained by Quizlet, frequency analysis and descriptive analysis for students' responses for survey and teachers' responses for survey and interview with open-ended questions were employed. It was found out that students reported Quizlet fostered their reading and writing more than listening and speaking skills. These findings also correlate with the results of achievement tests composed of multiple choice items dealing with comprehension domain held throughout the current study converging with other research in the literature (Spencer, 2006; Ogle, & Watts-Taffe, 2006,). Those students and teachers reported reading as the skill most promoted by Quizlet, which is in line with the finding that English dictionaries mediated by computers boosted mostly the receptive skills like reading (Li, 2010). The findings of this study also have common with results of the investigation in which students considered reading and writing as two language skills mostly boosted by CALL (Nomass, 2013). This common finding appears to reinforce the sound relation between vocabulary and reading (Folse, 2010).

As an interesting conflict, students mostly reported reading with highest frequency followed by speaking, writing and listening subjectively, while teachers considered writing, reading and listening with the same range of frequency followed by speaking. Students regarded Quizlet as sustaining listening skill at minimum whereas teachers viewed Quizlet supporting speaking the least.

Briefly, Quizlet mostly appears to enhance vocabulary proficiency in reading tasks, comprehension exercises as implemented in this study. Writing is also reported to be flourished via Quizlet even though it does not require writing in sentential and discorsal level.

5.5. What Are the Students' and Teachers' Perceptions about Quizlet Regarding Vocabulary Learning?

With the aim of disclosing the perceptions of both students and teachers, responses by students for Perceptions Survey formed in Likert Scale were analyzed for arithmetic means. The responses of focus group interviews were investigated with descriptive analysis. The data indicated the following significant remarks implying positive perceptions:

- Most of the students reported proneness to prefer Quizlet rather than traditional instruction for vocabulary learning.
- It was reported that Quizlet kept the students concentrated while fulfilling vocabulary tasks
- Quizlet was found enjoyable to use both in the class and out of the class.
- Quizlet was deemed as quite practical since students could access on web or mobile platforms
- Quizlet was reported to enable the learners track their individual progress and regulate their vocabulary development at their own pace, select the type of the activity to practise the words
- Frequent presentation of missed words by the students kept vocabulary learning more permanent
- The presentation of audio-visual aids reinforced the vocabulary development of learners
- Quizlet was found as recommendable to their peers by respondents due to its flexible use independent of time and place
- Frequent exposure to the pronunciation of target words in different activities on Quizlet.
- Components of FATIH project enhanced the advantages of Quizlet

Students and teachers were found to develop positive perceptions toward Quizlet like listed above and these findings mostly converge with the consequences of some studies in the literature. These findings are also in line with the findings of a case study by Chien (2015), which highlighted the view that flashcard web sites mostly enhanced vocabulary meaning, word recognition and particularly positive perceptions by students. Karakaya (2010) found similar findings as for teachers' perceptions stating that teachers did not report positive perceptions for their own use of technology due to the lack of their competency. Descriptive analysis of teacher interviews has revealed that teachers would allocate time to other language learning skills like speaking, writing etc. as students could control their own vocabulary development. Studies carried out by Albirini (2004), Tuzcuoğlu (2000), and Arkin (2003) pointed out positive perceptions of teachers toward technology integration.

In accordance with the findings of this study, Şimşek (2008) also pointed out that English language learners perceived ICT integration into the reading classes in a positive way suggesting that learners attributed their perceptions to individualized learning at their own pace, tracking their learning progress and practising vocabulary in a flexible setting. Similar positive perceptions and attitudes were also found out by Küçük (2008) in the investigation sampling 308 students. Regarding the components of FATİH project, the observations revealed out in the focus group interviews have yielded that students experienced gamification when they studied vocabulary via Quizlet on IWBs. This finding is very close to the research done by Sayır (2014) in order to determine the perceptions of teachers and students regarding CALL.

As a concluding remark, Quizlet is perceived as practical, enjoyable, recommendable, promoting learner autonomy. All these positive perceptions can be attributed to the mechanism found in Quizlet. That mechanism in Quizlet encourages the students to continue their vocabulary learning in flexible setting, with frequent exposure to pronunciation of the words, individualized vocabulary-learning strategies.

5.6. What Do Teachers and Students Think about the Effects of Quizlet on Motivation of the Students While Learning Vocabulary?

With the final research question, this study intends to find out the effects of Quizlet on students' motivation while studying vocabulary. The survey of perceptions involved 2 items directly related to motivation and results of Likert-Scale have indicated that students agreed on the motivating aspect of Quizlet.

Item 37 "Quizlet is very motivating since it evaluated my progress according to my individual performance and pace rather than comparing to my peers in the class".

Item 40 "Quizlet is very motivating because it enables me to prepare my own tests, activities, select the type and number of the questions and control all the activities on my own".

Learner responses for these items highlight the motivating effect of Quizlet on vocabulary development of learners, which is similar to the former studies. Esit (2011) and Groot (2000) emphasized the role of intentional vocabulary learning thanks to increasing motivation when instruction is integrated to CALL. Likewise, Nation (2001) ascertains that intentional vocabulary learning by means of CALL is more likely to result in positive effects than traditional instruction. Students also reported that they started to feel themselves more ready for the classes and exams thanks to that Quizlet enabled them regulate their affective filters, keep motivation at high level, this finding is also akin to suggestions by (Devi, 2005) on the advantages of computer technology.

Accordingly, focus group interviews administered to 8 teachers of experimental group also highlighted "the autonomous learning due to adaptable settings of Quizlet for individual preferences" related to high level of motivation among students (Deugo & Torlakovic, 2004. p. 120). These findings are congruent with the benefits of using computers in the education like self-esteem, occupational readiness promoting learner autonomy suggested by Dunked (1990). Accordingly, Chien (2006) also highlighted learners should be equipped with different CALL strategies for vocabulary learning so that they will become independent learners in the process of vocabulary development. Nation (2005), Oxford (1990), Allum (2002) and Chamot (1999) also point out the implication of learner autonomy referring to the vocabulary learning strategies

independent of instruction and teacher imposition, that is individualized learning mechanism presented by Quizlet. The increase in motivation of students can be related to learner autonomy, individual learning mechanism

In conclusion, this study intended to deal with the vocabulary teaching and learning in secondary schools in Turkey by using a Web 2.0 tool, Quizlet particularly 8 grader learners who are taking an English Test on Placement of Students for High Schools exam. Correspondingly, this study has analyzed the effects of using Quizlet by students and teachers regarding the vocabulary learning under the circumstances of FATİH Project and ICT integration. This study has also investigated the perceptions of learners and teachers regarding the use of Quizlet for vocabulary learning. Having a mixed method of quantitative and qualitative designs, the researcher found out that Quizlet considerably influenced the vocabulary learning achievement of experimental group learners particularly for word recognition whereas the control group students could not increase their vocabulary learning achievement scores with traditional instruction.

As for the perceptions of teachers and particularly students, most of the participants considered Quizlet working best for reading, writing, pronunciation and comprehension. The findings also have pointed out that students reported enjoyable learning integrated with technology and various activities on Quizlet, developing learner autonomy for different vocabulary learning strategies and individualized learning mechanism, increase in motivation to some extent in line with previous studies (Anderson & Speck, 2001; Case & Truscott, 1999; Chapple & Curtis, 2000; Ellinger et al, 2001; Ilter, 2009; Kung, 2003; Lee, 2000; Step-Granny, 2000; Zengin, 2007)

6. SUGGESTIONS FOR FURTHER STUDIES

Having been strongly influenced by the comparison of digital natives and digital immigrants, I can argue that rapid wind of digital technology waves in such a globalized world is more likely to create a discrepancy between teachers equipped with technology and those with traditional methods and indifference to interests and needs of digital native students of this century (Pensky, 2001). Turkey has started to realize great innovations in integration of ICT tools into educational process with FATİH project and Ministry of National Education (MoNE) has begun to require both learners and teachers prepare their own materials and activities by means of FATİH project. Additionally, it is also declared that digital tools will be integrated into foreign language education and teachers of English will be given online and on-site trainings (MEB 2023 Eğitim Vizyonu, 2018). Accordingly, this study is likely to disseminate the teacher and user-friendly Web 2.0 tools regarding the students and teachers' individual interests and needs. Another important finding is that vocabulary learning does not need to be left out as an isolated domain in EFL context especially among Turkish teachers. Digital immigrants are less likely to keep themselves off the interests and styles of digital natives, learners.

Accordingly, further studies can be designed regarding investigation between other web tools and other domains of language learning. Quizlet can also be investigated for the possible effects on other language skills with different formats of tests. To get deeper insights into the effects of Quizlet on reading skill, different tests can be formulated with higher number of participants. The scope of the research can be extended to other graders learning English vocabulary.

REFERENCES

- Akcaoglu, M. (2007). *Exploring technology integration approaches and practices of preservice and inservice English language teachers*. Unpublished MA Thesis. METU, Ankara.
- Akdemir, A. S. (2017). eTwinning in language learning: The perspectives of successful teachers. *Journal of Education and Practice*, 8 (10), 182-190.
- Akkoyunlu, B., & İmer, G. (1999). Çağdaş eğitimde yeni teknolojiler. Özer, B. (Ed), *Türkiye 'de eğitim teknolojisinin görünümü*. 158-167. Eskişehir, Turkey: Anadolu Üniversitesi Yayınları.
- Akbaba-Altun, S. (2006). Complexity of integrating computer technologies into education in Turkey. *Educational Technology & Society*, 9(1), 176-187.
- Albirini, A. (2004). *An exploration of the factors associated with the attitudes of high school EFL teachers in Syria toward information and communication technology*. (Unpublished Doctoral Dissertation, the Ohio State University). Proquest Digital Dissertations (UMI No.3141718).
- Allum, P. (2002). CALL and the classroom: The case for comparative research. *ReCALL*, 14(1), 146-166. doi:10.1017/S0958344002001210
- Alshammari, A. N. (2013). *A quantitative study of the impact of immersive game-based learning on enhancing vocabulary instruction and acquisition for English language learners*. Unpublished MA Thesis. Western Illinois University.
- Alshwairkh, A.N. S. (2004). *Learning vocabulary through internet reading: approaches and attitudes of ESL mba students*. Unpublished Doctorate Dissertation. Accessed from ProQuest Dissertations. (UMI No. 3149715).
- Anderson, R & B. Speck. (2001). *Using technology in K-8 literacy classrooms*. Upper Saddle River, N: J: Prentice Hall.
- Arkin, E.Ğ. (2003). *Teachers' attitudes towards computer technology use in vocabulary instruction*. Unpublished MA Thesis, Bilkent University, Ankara.
- Bacigalupo, M., & Cachia, R. (2011). *Teacher collaboration networks in 2025 - What is the role of teacher networks for professional development in Europe?* Notes from the Workshops held on the 6th and 7th June 2011 at the Institute for Prospective Technological Studies of the European Commission Joint Research Centre.

- Seville: European Commission - Joint Research Center -Institute for Prospective Technological Studies, EUR 25025 EN. Available at:
<http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=4739>
- Bakla, A., & Çekiç, A. (2017). Using an online vocabulary memorization tool versus traditional vocabulary exercises. *Ana Dili Eğitimi Dergisi*, 5(4), 948-966.
- Bandura, A. (1997). *Self-Efficacy: The exercise of control*. New York: Freeman.
- Baturay, H. M.; Daloğlu A & İ. S. Yıldırım. (2007). “Web-Tabanlı İngilizce kelime öğretimi ve tekrar modeli” *Politeknik dergisi*, 1 (3), 241-245.
- Benjamin, A., & Crow, J. T. (2010). *Vocabulary at the center*. Larchmont, NY: Eye on Education.
- Blachowicz, C. L., Fisher, P. J., Ogle, D., & Watts-Taffe, S. (2006). Vocabulary: Questions from the classroom. *Reading Research Quarterly*, 41(4), 524-539. doi:10.1598/RRQ.41.4.5
- Boersma, P., & Weeknik, D. (2005). Praat: Doing phonetics by computer (v. 4.3.04). Accessed from <http://www.fon.hum.uva.nl/praat/>
- Bomia, L., Beluzo, L., Demeester, D., Elander, K., Johnson, M., & Sheldon, B. (1997). *The impact of teaching strategies on intrinsic motivation*. Champaign, IL: ERIC Clearinghouse on Elementary and Early Childhood Education.
- Boyce, A.D. (2016). *The effect of the video game quizlet on the acquisition of science vocabulary for children with learning disabilities*. Unpublished MA Thesis. Accessed from ProQuest Dissertations. (UMI No. 10165260)
- Boyd, M., & Rubin, D. (2002). Elaborated Student Talk in an Elementary ESOL Classroom. *Research in the Teaching of English*, 36(4), 495-530. Retrieved December 15, 2018, from <http://www.jstor.org/stable/40171587>
- Brace, I. (2004). *Questionnaire Design: How to Plan Structure and Write Survey Material for Effective Market Research*. USA: Kogan Page.
- Brett, D. (2004). Computer generated feedback on vowel production by learners of English as a second language. *ReCALL*, 16(1), 103-113. doi:10.1017/S0958344004000813
- Brown, D. & Warschauer, M. (2006). From the university to the elementary classroom: Students’ experiences in learning to integrate technology in instruction. *Journal of Technology and Teacher Education*, 14(3), 599-621.

- Browne, C., & Culligan, B. (2008). Combining technology and IRT testing to build student knowledge of high frequency vocabulary. *The JALT CALL Journal*, 4(2), 3-16. Accessed from http://journal.jaltcall.org/articles/4_2_Browne.pdf
- Capple, L. & A. Curtis. (2000). Content-based instruction in Hong Kong, Student responses to film. *System*, 28, 419-433.
- Carlo, M. S.; August, D.; Dressler, C.; Lipman, D. N., & McLaughlin, B.; Snow, C. E., & White, C. E. (2004). Closing the gap: Addressing the vocabulary needs of English-language learners in bilingual and mainstream classrooms. *Reading Research Quarterly*, 39(2), 188-215.
- Carrier, K. A., & Tatum, A. W. (2006). Creating sentence walls to help English-language learners develop content literacy. *Reading Teacher*, 60(3), 285-288. doi:10.1598/RT.60.3.10
- Carvalho, M.M.C. (2013). *Vocabulary teaching and learning strategies in a foreign/second language*. Unpublished MA Thesis. Accessed November 20, 2018, from ProQuest Dissertations. (UMI No. 1549464).
- Case, C & D. Truscott. (1999). The lure of bells and whistles; choosing the best software to support reading instruction reading and writing quarterly. *Overcoming Learning Difficulties*. 15-19.
- Cassidy, J., & Cassidy, D. (2005/2006). What's hot, what's not for 2006. *Reading Today*, 23(3), 1, 8-9.
- Celce, M. M. (2001). Language teaching approaches: an overview in Celce-M. M. *Teaching English as a Second or Foreign Language*. (3rd ed.). London: Heinle Heinle – Thomson Learning.
- Chamot, A. U. (1999). *Learning strategy instruction in the English classroom*. Retrieved January 15, 2018, from <http://www.Jaltpublications.org/tlt/article/1999/Chamot/>.
- Chartrand, R. (2004). A historical perspective of computer assisted language learning. *C@lling Japan*, (12), 24-26
- Chen, J., Belkada, S., & Okamoto, T. (2004). How a web-based course facilitates acquisition of English for academic purposes. *Language Learning & Technology*, 8(2), 33-49.
- Chen, Z. (2006). *The effects of multimedia annotations on L2 vocabulary immediate recall and reading comprehension: A comparative study of text-picture and audio-picture annotations under incidental and intentional learning conditions* (

- Unpublished Doctoral dissertation. University of South Florida. DAI-A, 68/01, 170.
- Chieh, S.T. (2006). *A study of the effectiveness of interactive multimedia, using a teacher guided multimedia cd-rom program, for teaching English vocabulary to EFL learners among college junior students in Taiwan*. Unpublished MA Thesis. Accessed February 20, 2017, from ProQuest Dissertations. (UMI No. 3209108).
- Chien, C. F.(2015). Analysis the effectiveness of three online vocabulary flashcard websites on L2 learners' level of lexical knowledge. *English Language Teaching*, 8 (5), 111-121
- Chomsky, N. (1957). *Syntactic Structure*. The Hague. The Netherlands: Mouton
- Chun, D. & Brandi, K. K. (1992). Beyond form-based drill and practice: Meaning-enhancing CALL on the Macintosh. *Foreign Language Annals*, 25(3), 255-265.
- Cobb, T., Horst, M., & Nicolae, I. (2005). Expanding academic vocabulary with an interactive online database. *Language Learning & Technology*, 9(2), 90-110
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124–130.
- David, J. L. (2010). Closing the vocabulary gap. *Educational Leadership*, 67(6), 85-86.
- Davies, G. (2003), Computer Assisted Language Learning. Where we now and where are we going? Retrieved May 20, 2017, from http://www.futurelab.org.uk/resources/publications_reports_articles/web_articles/Web_Article59
- Devi, V. A. (2005). Using animation for teaching phrasal verbs: A brief Indian experiment. *Language In India*, 5(8). Accessed May 25, 2017, from <http://www.languageinindia.com/aug2005/animationanitha1.html>
- Dijksterhuis A, Bargh JA. 2001. The perception-behavior expressway: automatic effects of social perception on social behavior. *Advances in Experimental Social Psychology*, 23, 1–40
- Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford: Oxford University Press.
- Duncan Howell, J. (2010). Teachers making connections: Online communities as a source of professional learning. *British Journal of Educational Technology*, 41 (2), 324–340.

- Dunkel, P. (1990). Implications of the CAI effectiveness research for limit English proficient learners. *Computers in the Schools*, 7(1-2), 31-52.
- Torlaković, E. & Deugo, D. (2004) Application of a CALL system in the acquisition of adverbs in English. *Computer Assisted Language Learning*, 17(2), 203-235, DOI: 10.1080/0958822042000334244
- Esit, Ö. (2011). Your verbal zone: an intelligent computer-assisted language learning program in support of Turkish learners' vocabulary learning. *Computer Assisted Language Learning*, 24(3), 211-232.
- Eskey, D. E. & Grabe, W. (1988) Interactive models for second language learning, in: P. L. Carrell, J. Devine & D. E. Eskey (Eds) *Interactive approaches to second language learning*. New York. Cambridge University Press
- eTwinning. (2018). Accessed October 20 2018, from <https://www.eTwinning.net/tr/pub/about.htm>
- eTwinning Türkiye (2018). Accessed October 20 2018, from http://etwinning.meb.gov.tr/sayfa/30/etwinning_nedir
- eTwinning Türkiye (2018). Accessed October 20 2018, from http://etwinning.meb.gov.tr/sayfa/28/etwinningin_faydalari.
- Eyyam, R., Meneviş, I., & Doğruer, N. (2010). The attitudes of EPS instructors towards using instructional technology in their classes. *Procedia Social and Behavioral Sciences*, 15(2), 5095-5099.
- Fat, S. (2012). *The impact study of eTwinning projects in Romania*. Paper presented at the 8th International Scientific Conference eLearning and Software for Education. April 26-27, 2012 10.5682/2066-026X-12-024
- FATİH Projesi. (2018). Accessed December 20, 2018, from <http://FATIHprojesi.meb.gov.tr/about.html>
- Fidan, O. B. (2003). *The Effects of using different strategies in computerised media on the quantity of learned vocabulary, time spent to learn and retention of learning English vocabulary*. Unpublished M.A Thesis. Ankara University, Ankara.
- Folse, K. S. (2004). *Vocabulary myths: Applying second language research to classroom teaching*. Ann Arbor, MI: University of Michigan.
- Folse, K.S. (2010). Is explicit vocabulary focus the reading teacher's job? *Reading in a Foreign Language*, 22(1), 139–160.

- Genç, H. (2011). Investigating In-service EFL Teachers' attitudes towards integrating ICTs into Instruction. *Proceedings of Society for Information Technology & Teacher Education International Conference 2011* (pp. 2465-2472).
- Gilleran, A. (2007) eTwinning – A new path for european schools, eLearning papers. Accessed December 20, 2018, from https://www.openeducationeuropa.eu/sites/default/files/legacy_files/old/media13562.pdf
- Gonzalez, D. (2007).Text-to-speech applications used in EFL contexts to enhance pronunciation. *TESL-EJ*, 11 (2). Retrieved April 19, 2018, from <http://tesl-ej.org/ej42/int.pdf>.
- Groot, P.J.M. (2000). Computer assisted second language vocabulary acquisition. *Language Learning and Technology*, 4(1), 60-81. Retrieved January 4, 2017, from <http://lt.msu.edu/vol4num1/gtoot/>
- Gu, Y., & Johnson, R. K. (1996). Vocabulary learning strategies and language learning outcomes. *Language Learning* 46 (4), 643 – 79.
- Haladyna, T. M.; Downing, S. M., & Rodriguez, M. C. (2002). A review of multiple-choice item-writing guidelines for classroom assessment. *Applied Measurement in Education*, 15(3), 309–334.
- Hall, J. K., & Verplaetse, L. S.(2000). *Second and foreign language learning through classroom interaction*. Mahwah, NJ: Lawrence Erlbaum Associates
- Hatch, E., & Brown, C. (1995). *Vocabulary, semantics, and language education*, Cambridge: Cambridge University Press.
- Hayes, D. P., Wolfer, L. T., & Wolfe, M. F. (1996). Schoolbook Simplification and Its Relation to the Decline in SAT-Verbal Scores. *American Educational Research Journal*, 33(2), 489–508. <https://doi.org/10.3102/00028312033002489>
- Hegelheimer, V. (2006).When the technology course is required. In P. Hubbard & M.Levy (Eds.), *Teacher Education in CALL* (pp. 117-133). Philadelphia, PA: John Benjamins. Publishing Company.
- Hiebert, E. H., & Kamil, M. L. (2005). Teaching and learning vocabulary: Perspectives and persistent issues. In E. H. Hiebert & M. L. Kamil (Eds.), *Teaching and learning vocabulary: Bringing research to practice*. (pp. 1-23). Mahwah, NJ: Lawrence Erlbaum.
- Hismanoğlu, S. (2010). Attitudes of L2 teachers towards Internet-based foreign language teaching. *Procedia Social and Behavioral Sciences*, 3, 106-111.

- Hoffman, S. (1995-1996). Computers and instructional design in foreign language/ESL instruction. *TESOL Journal*, 5(2), 24-29.
- Holmes, B. (2013). School teachers' continuous professional development in an online learning community: Lessons from a case study of an eTwinning learning event. *European Journal of Education*, 48(1), 97-112. Accessed November 20, 2018, from <https://onlinelibrary.wiley.com/doi/epdf/10.1111/ejed.12015>
- Huckvale, M. (2003). *Speech filling system (computer software)*. University College, London. U.K.
- Işık, Ö. (2009). *Turkish EFL teachers' attitudes towards ICT integration in language classrooms*. Unpublished MA Thesis. Uludag University, Bursa.
- Iltter, G.B. (2009). Effect of technology on motivation in EFL classrooms. *Turkish Online Journal of Distance Education*, 10(4), 136-158.
- James, R. (1996). CALL and the speaking skills. *System*, 24 (1), 15-21. Elsevier Science Ltd.
- Johnson, A., & Heffernan, N. (2006). The short readings project: A CALL reading activity utilizing vocabulary recycling, *Computer Assisted Language Learning*, 19 (1), 63-77.
- Joshi, S., & Srivastava, R. (2009). Self-esteem and academic achievement of adolescents. *Journal of the Indian Academy of Applied Psychology*, 35, Special Issue, 33-39
- Judd, E. (1978). Vocabulary teaching and TESOL: A Need for Reevaluation of Existing Assumptions. *TESOL Quarterly*, 12(1), 71-76. doi:10.2307/3585792
- Kampylis, P.; Bocconi, S., Punie, Y. (2012). *Fostering innovative pedagogical practices through online networks: the case of eTwinning*. *Education Matters - Inspire XVII*. Accessed January 20, 2019, from https://www.researchgate.net/publication/235965832_Fostering_innovative_pedagogical_practices_through_online_networks_the_case_of_eTwinning
- Karakaya, K. (2010). *An investigation Of English language teachers' attitudes toward computer technology and their use of technology in language teaching*. Unpublished Doctoral dissertation, METU. Ankara
- Kern, R. & Warschauer, M. (2000), "Theory and practice of network-based language teaching." In Warschauer, M. & Kern, R. (Eds.), *Network-based language teaching: Concepts and practice*, (pp. 1-19). New York: Cambridge University Press.

- Kern, R. (2006). Perspectives on technology in learning and teaching languages. *TESOL Quarterly*, 40(1), 183-210.
- Kiliçkaya, F., & Krajka, J. (2010a). Comparative usefulness of online and traditional vocabulary learning. *The Turkish Online Journal of Educational Technology*, 9(2), 55-63.
- Kiliçkaya, F., & Krajka, J. (2010b). Teachers' technology use in vocabulary teaching. *Academic Exchange Quarterly*, 14(1), 81-86.
- Kızılet, E. (2016). *Exploring english language teachers' and learners' perceptions of technology: insights from the FATİH Project*. Unpublished MA Thesis. Gazi University. Ankara. Accessed January 20, 2019, from <https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp>
- Kol, S., & Schcolnik, M. (2000). Enhancing screen reading strategies. *CALICO Journal*, 18(1), 67-80. Retrieved January 20, 2019 from <http://www.jstor.org/stable/24147693>
- Kung, S. C. (2003). Using web resources in public speaking class. *English Teaching Forum*. April.
- Küçük, T. (2009). *University preparatory school students' and teachers' perceptions of computer-assisted language learning (CALL) environment*. Unpublished MA Thesis. METU. Ankara. Turkey.
- Lambert, M. (2012). *A beginner's guide to doing your education research project*. Chennai, India: Sage.
- Larsen-Freeman, D. (1986). *Techniques and principles in language teaching*, Oxford: Oxford University Press.
- Laufer, B. (1986). Possible changes in attitude towards vocabulary acquisition research. *International Review of Applied Linguistics in Language Teaching*, 24, 73-79.
- Laufer, B. & Hulstijn, J. (2001). Incidental vocabulary acquisition in a second language: the construct of task-induced involvement, *Journal of Applied Linguistics*, 22 (1), 1-26.
- Lee, K., (2000), English teachers' barriers to the use of computer-assisted language learning. *The Internet TESL Journal*, 6(12). Accessed 20 December, 2018, from <http://iteslj.org/Articles/Lee-CALLbarriers.html>
- Legenhausen, L., & Wolff, D. (1990). CALL in use-Use of CALL: Evaluating CALL software. *System*, 18(1), 1-14.

- Levis, J., & Pickering, L.D. (2004). Teaching intonation in discourse using speech visualization technology. *System*, 32(4), 505-524.
- Levy, M., & Stockwell, G. (2006). *CALL Dimensions: Options and Issues in Computer-Assisted Language Learning*. New Jersey: Lawrence Erlbaum Associates.
- Li, J. (2010). Learning vocabulary via computer-assisted scaffolding for text processing. *Computer Assisted Language Learning*, 23(3), 253-275.
- Luppici, R. (2007). *Online learning communities*: Information Age Publishing
- Ma, Q. & Kelly, P. (2006). Computer assisted vocabulary learning: design and evaluation, *Computer Assisted Language Learning*, 19 (1), 15-45.
- Ma, Q. (2009). *Second language vocabulary acquisition*. Bern: Peter Lang.
- Manfredini E. (2007). The Contribution of eTwinning to Innovation – Mathematics, Science and Technology. Key Competences in Lifelong Learning. Prieiga per internetą.
- McCarthy, M. J. (1984). A new look at vocabulary in EFL. *Applied Linguistics*, 5, 12-22.
- McCarthy, M., & Carter, R. (1997). Written and spoken vocabulary. In N. Schmitt & M. McCarthy, (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 20-39). Cambridge, England: Cambridge University Press.
- McConnell, D. (2006). *E-learning groups and communities*. Maidenhead: Open University Press.
- Meara, P. (1982). *Vocabulary Acquisition*: Cambridge: CUP
- MEB 2023 Eđitim Vizyonu (2018). Accessed December 15, 2018, from <http://2023vizyonu.meb.gov.tr/>
- Morin, R., & Goebel, J. (2001). Basic vocabulary instruction: teaching strategies or teaching words? *Foreign Language Annals*, 34, 8-17.
- Nation, I.S.P. (1990). *Teaching and learning vocabulary*, New York: Newbury House Publishers.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Nation, P. (2005). Teaching vocabulary. *Asian EFL Journal*, 7(3)
- Nomass, B. B. (2013). The impact of using technology in teaching English as a second language. *English Language and Literature Studies*, 3(1), 111-116.
- OECD (2005). National education policy review: Background report. OECD, Paris.

- Oxford, R. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House.
- Özdemir, S. & Kılıç, E. (2007). Integrating information and communication technologies in the Turkish primary school system. *British Journal of Educational Technology*, 38(5), 907-916.
- Pearson, P. D., Hiebert, E. H., & Kamil, M. L. (2007). Vocabulary assessment: What we know and what we need to learn. *Reading Research Quarterly*, 42(2), 282–296. doi:10.1598/RRQ.42.2.4
- Peachey, N. 2009. Web 2.0 tools for teachers. www.scribd.com/doc/19576895/Web-20-Tools-forTeachers
- Pekel, N. (2002). *Students' attitudes towards web-based independent learning at Bilkent University school of English language*. Unpublished MA Thesis. Bilkent University. Ankara.
- Pereira Coutinho C. ve Rocha C. (2007). The eTwinning project: A study with Portuguese 9th grade students. Accessed December 15, 2018 from <http://repositorium.sdum.uminho.pt/bitstream/1822/6722/1/catarina.pdf>
- Peters, E., Hulstijn, J. H., Sercu, L., & Lutjeharms, M. (2009). Learning L2 German vocabulary through reading: The Effect of Three Enhancement Techniques Compared. *Language Learning*, 59(1), 113-151.
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 2-3.
- Prentza, A. (2013). “CLIL & ICT in English foreign language learning: the eTwinning Experience of a primary school of intercultural education”, ICT for Language Learning, 6th edition. Accessed June 15, 2018, from http://conference.pixelonline.net/ICT4LL2013/common/download/Paper_pdf/094-CLI03-FP-Prentza-ICT2013.pdf
- Pusack, J. P., & Otto, S. K. (1990). Applying instructional technologies. *Foreign Language Annals*, 23(5), 409-417.
- Quizlet. (2019). Accessed January 15, 2019, from <https://quizlet.com/mission>
- Rampone, S. (2013). *eCLIL4You a European Comenius project to promote language learning through web 2.0 tools from pre-school to lower secondary education*. International Conference ICT for Learning.

- Rashidi, N., & Omid, A. (2011). A survey on Iranian EFL learners' beliefs on the role of rote memorization in learning vocabulary and its effect on vocabulary achievement. *Journal of Pan-Pacific Association of Applied Linguistics*, 15(1), 139-161.
- Raugh, M. R., & Atkinson, R. C. (1975). A mnemonic method for learning a second-language vocabulary. *Journal of Educational Psychology*, 67(1), 1-16.
<http://dx.doi.org/10.1037/h0078665>
- Salaberry, M. R. (2001). The use of technology for second language learning and teaching: A retrospective. *The Modern Language Journal*, 85 (1), 39-56.
 Retrieved on 12th October, 2018 from: <http://www.jstor.org/stable/330375>
- Sanaoui, J. (1995). A review of research into vocabulary acquisition through dictionary use. *Studies in the Humanities and Sciences*, 44, 67-97.
- Sayır, M.F. (2014). *Students' and teachers' attitudes towards interactive whiteboards used in English courses via FATİH project and the effects of IWBs on speaking skill*. Unpublished MA Thesis. Çağ University. Mersin. Retrieved October 20, 2018, from
<https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp>
- Schmitt, N. (1997). Vocabulary learning strategies. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: description, acquisition and pedagogy* (pp.199-228). Cambridge: Cambridge University Press.
- Schmitt, N. (2001). *Current perspectives on vocabulary teaching and learning*. UK: The University of Nottingham
- Schmitt, N. (2000). *Vocabulary in language teaching*. UK: The University of Nottingham.
- Spencer, C. (2008). *Academic listening realities of second language university students*. University of New Brunswick (Canada).
- Stepp-Greany, J. (2002). Student perceptions on language learning in a technological environment: Implications for the new millennium. *Language Learning and Technology*.165-180.
- Stockwell, G. (2007a). A review of technology choice for teaching language skills in areas in the CALL literature. *ReCALL Journal*, 19 (2), 105-120
- Stockwell, G. (2007b). Vocabulary on the move: Investigating an intelligent mobile phoned-based vocabulary tutor. *Computer Assisted Language Learning*, 20, 365-383.

- Şimşek, Sağın, Ç.S. (2008). Students' attitudes towards integration of ICTs in a reading course: A case study in Turkey. *Computers & Education*, 51(1), 200-211.
- Tabatabaei, O., & Hejazi, N. H. (2011). Gender differences in vocabulary instruction using keyword method (Linguistic Mnemonics). *Canadian social science*, 7(5), 198-204.
- Taniguchi, M., & Abberton, E. (1999). Effect of interactive visual feedback on the Improvement of English intonation of Japanese EFL learners. *Speech, Hearing and Language*, 11, 76-89. Retrieved December 12, 2018 from http://www.phon.ucl.ac.uk/home/shl11/pdf_files/taniguchi.pdf
- Terman, L. M. (1916). *The uses of intelligence tests*. Boston, MA: Houghton Mifflin
- Thornbury, S. (2002). *How to teach vocabulary*. Malaysia: Longman.
- Tick, A. (2006). From computer assisted language learning to computer mediated language learning. *Proceedings of 4th Slovakian-Hungarian Joint Symposium on Applied Machine Intelligence SAMI 2006, Herlany, Slovakia*.
- Tokaç, A. (2005). *A Comparison of computer-assisted vocabulary instruction and teacher-led vocabulary instruction*. Unpublished MA Thesis. Bilkent University. Ankara. Accessed July 15, 2018 from <http://dspace.bilkent.edu.tr/bitstream/handle/11693/29643/0002840.pdf?sequence=1&isAllowed=y>
- Torlakovic, E., & Deugo, D. (2004) Application of a CALL system in the acquisition of adverbs in English. *Computer Assisted Language Learning*, 17, 203–235.
- Tunçok, B. (2010). *A case study: Students' attitudes towards computer assisted learning, computer assisted language learning, and foreign language learning*. Unpublished MA Thesis. METU. Ankara.
- Tuzcuoglu, U. (2000). *Teachers' Attitudes towards Using Computers in Classes*. Retrieved December 14, 2017, from <http://repository.bilkent.edu.tr/handle/11693/18179>
- Underwood, J. (1984). *Linguistics, computers, and the language teacher: A communicative approach*. Newbury House, Rowley, MA.
- Velea L. S. (2012). *Transnational school partnerships supported by ICT. Benefits for learning*. The 8th international scientific conference eLearning and software for education. Romania, 26-27 2012.
- Vesely, P., & Gryder, N. (2007). Teaching visual imagery for vocabulary learning. *Academic Exchange Quarterly* 11(2), 51-55.

- Vuorikari, R. ve Scimeca, S. (2012). Social learning analytics to study teachers' large-scale professional networks. T. Ley, M. Ruohonen, M. Laanpere, A. Tatnall. 1st Open and Social Technologies for Networked Learning (OST), July 2012, Tallinn, Estonya. Springer, *IFIP Advances in information and communication technology*, AICT-395, pp. 25-34, 2013,
- Vygotsky, L. S. (1986). *Thought and Language*. Cambridge, MA: MIT Press
- Warschauer, M. (1996). *Computer-assisted language learning: An introduction*. In S. Fotos (Ed.), *Multimedia Language Teaching*. Tokyo and San Francisco: Logos International
- Warschauer, M., Deborah, & H. (1998). *Computers and language learning: An overview*. *Language Teaching*, 31, 57-71.
- Warschauer, M., & Kern, R. (2000). *Network-based language teaching: concepts and practice*. New York, USA: Cambridge University Press.
- Warschauer, M., & Meskill, C. (2000). Technology and second language teaching and learning. In J. Rosenthal (Ed.), *Handbook of Undergraduate Second Language Education*. Lawrence Erlbaum Associates. New Jersey. Winnans
- Warschauer, M. (2002). A developmental perspective on technology in language education. *TESOL Quarterly* 36(3), 453-475.
- Weiss, B.; Gridling, G.; Trödhandl, C., & Elmenreich, W. (2006). *Embedded systems exams with true/false questions: A case study*. (Research Report No. 5). Vienna: Faculty of Informatics, Vienna University of Technology o. Document Number).
- Wesche, M., & Paribakht, T. S. (1996). Assessing second language vocabulary: Depth versus breadth. *The Canadian Modern Language Review*, 53, 13-40.
- Wilkins, D. A. (1972). *Linguistics in Language Teaching*. London: Arnold.
- Yousefzadeh, M.(2011). Computer-based glosses vs. traditional paper-based glosses and L2 learners vocabulary learning. *International Journal on New Trends in Education and Their Implications*, 2 (3).
- Yılmaz F., & Altun Yılmaz S. (2012). Çokkültürlülük projesi: eTwinning uygulamalarına ilişkin öğrenci görüşleri. *Dicle Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 4(5), 120-132.
- Zengin, R. (2007). A research about the English language teachers' use of instructional technologies in Turkey. *Journal of the Hasan Ali Yücel Faculty of Education*. October



APPENDICES

Appendix A. Official Ministerial Direction on eTwinning Projects



T.C.
MİLLÎ EĞİTİM BAKANLIĞI
Yenilik ve Eğitim Teknolojileri Genel Müdürlüğü

Sayı : 81576613-609-E.15818310
Konu : eTwinning Faaliyetinin Yaygınlaştırılması

04.10.2017

.....VALİLİĞİNE
(İl Millî Eğitim Müdürlüğü)

eTwinning Faaliyeti Avrupa Komisyonu Eğitim Görsel-İşitsel ve Kültür Yürütme Ajansı tarafından Erasmus + Programı kapsamında finanse edilen, Avrupa Okul Ağı Konsorsiyumu organizasyonunda, 33 Avrupa Ülkesi ve 6 Avrupa Dışı Ülke Eğitim Bakanlıkları veya Ulusal Ajansları tarafından yürütülen bir faaliyettir. Ülkemizde eTwinning Faaliyeti, Genel Müdürlüğümüz bünyesinde kurulmuş olan eTwinning Türkiye Ulusal Destek Servisi tarafından yürütülmektedir. eTwinning Faaliyeti, öğretmenlerimize bilgi ve iletişim teknolojileri araçlarıyla iletişim kurarak, bilgi ve deneyim paylaşabilecekleri; çevrim içi ve yüz yüze eğitimlere katılabilecekleri; tüm Avrupa'dan ve ülkemizden öğretmenlerle öğrencilerini de dahil ederek, teknolojiyi etkin ve verimli biçimde kullandıkları, öğretim programlarına uyumlu projeler gerçekleştirebilecekleri bir ortam sunmaktadır.

Öğretmenlerin teknolojiyi derslerinde etkin ve doğru biçimde kullanmasına yönelik fırsatlar sunan, tüm Avrupa'dan farklı ülkelerle birlikte projeler gerçekleştirme imkanı sağlayan eTwinning Faaliyeti, FATİH projesinin uygulamadaki başarısına ve etkinliğine olumlu yönde katkı sağlamaktadır.

Öğrencilerimizin ve öğretmenlerimizin FATİH Projesi ve EBA tarafından sunulan bilişim teknolojilerini verimli ve amaca yönelik kullanmalarını sağlamak amacıyla ülkemizdeki her okulun bilişim etiği çerçevesinde en az bir kaliteli eTwinning projesi yapması beklenmektedir.

Bir önceki eğitim-öğretim yılında eTwinning projelerinden tamamlananlar ile halen devam edenlerin takip edilmesi amacıyla 02 Ekim 2017 tarihinde projeler kapatılmıştır. eTwinning projesi devam eden öğretmenlerin projelerini açmaları, eTwinning portalına kayıt olmayan öğretmenlerin <https://www.etwinning.net/tr> adresinden eTwinning portalına kayıt olmaları ve proje başlatmaya teşvik edilmeleri hususunda,

Bilgilerinizi ve gereğini rica ederim.

Bilal TIRNAKÇI
Bakan a.
Genel Müdür

DAĞITIM:
Gereği:
B Planı

Emniyet Mahallesi, Milas Sokak, No:8 06560 Yenimahalle/ANKARA
Telefon No: 0 (312) 296 94 00 Faks: 0 (312) 213 61 36
e-Posta: hulyabaliz@meb.gov.tr İnternet Adresi: <http://yegitek.meb.gov.tr>

Bilgi için: Dr. Hülya BAL
Öğretmen
Telefon No: (0 312) 296 96 55

Bu evrak güvenli elektronik imza ile imzalanmıştır. <https://evraksorgu.meb.gov.tr> adresinden 76a4-7f4c-3eb1-89ed-b9e8 kodu ile teyit edilebilir.

Appendix B. Parental Permission for eTwinning Projects

VELİ İZİN BELGESİ

ÖĞRENCİNİN			
Adı Soyadı	[REDACTED]	Baba adı	[REDACTED]
Sınıfı	8/B	Ana adı	[REDACTED]
No	[REDACTED]	Cinsiyeti	K <input checked="" type="checkbox"/> E ()
Doğum Yeri - Tarihi	[REDACTED]	Ev Telef.	[REDACTED]
Cep Telefonları	Baba	Anne	Diger
	[REDACTED]	[REDACTED]	[REDACTED]

Velisi bulunduğum / bulunduğumuz yukarıda açık kimliği yazılı okulunuz öğrencisinin, eTwinning(Avrupa Okul Ortaklıkları) Projeleri kapsamında yapılan etkinliklerde yer almasına, bu etkinliklerin resim, video vb. şekilde kayıt altına alınıp eğitim öğretime destek sağlamak koşuluyla gerekli görülen sosyal paylaşım ortamlarında yayınlanmasına izin veriyorum. Öğrencinin; "etkinlik boyunca görüntüsünün yayınlanmasından dolayı olumsuz bir durumla karşı karşıya kalındığında" her türlü sorumluluğu üstlenir, gereğini bilgilerinize arz ederim.

25.05.2017

Anne(Adı Soyadı - İmza)	Baba (Adı Soyadı - İmza)
[REDACTED]	[REDACTED]

Anne- Baba ikisi de yaşamıyorsa Yasal Velisinin		
Adı Soyadı	Yakınlığı	İmzası
[REDACTED]	[REDACTED]	[REDACTED]

AÇIKLAMALAR:

- 1- Bu izin belgesi, yukarıda belirtilen etkinliğe katılacak olan öğrencinin annesi ya da babasınınca (annesi, babası yaşamıyorsa yasal velisince) (2) adet doldurulup imzalanacaktır. Bir örneği okulunda saklanacak; bir örneği de ailede kalacaktır.
- 2- Cep telefonları bölümünde yer alan "Diğer" bölümüne ulaşılabilecek en yakın kişilerin adları, telefonları kesinlikle yazılacaktır.
- 3- İzin Belgesi olmayan öğrenci ilgili etkinliğe alınmayacaktır.
- 4- Gerçek dışı beyan ve imzanın sorumluluğu, belgeyi dolduranlara, imzalayana aittir.

Onaylanır,
25.05.2017
(Okul-Kurum Müdürü Adı Soyadı İmza-Mühür)

[REDACTED]
Okul Müdürü

VELİ İZİN BELGESİ

ÖĞRENCİNİN			
Adı Soyadı	[Redacted]	Baba adı	[Redacted]
Sınıfı	8B	Ana adı	Ayşe Korkmaz
No	83	Cinsiyeti	K () E (X)
Doğum Yeri - Tarihi	[Redacted]	Ev Telef.	
Cep Telefonları	Baba	Anne	Diğer
	[Redacted]	[Redacted]	

Velisi bulunduğum / bulunduğumuz yukarıda açık kimliği yazılı okulunuz öğrencisinin, eTwinning(Avrupa Okul Ortaklıkları) Projeleri kapsamında yapılan etkinliklerde yer almasına, bu etkinliklerin resim, video vb, şekilde kayıt altına alınıp eğitim öğretime destek sağlamak koşuluyla gerekli görülen sosyal paylaşım ortamlarında yayınlanmasına izin veriyorum. Öğrencinin; "etkinlik boyunca görüntüsünün yayınlanmasından dolayı olumsuz bir durumla karşı karşıya kalındığında" her türlü sorumluluğu üstlenir, gereğini bilgilerinize arz ederim.

02.11.2017

Anne(Adı Soyadı - İmza)	Baba (Adı Soyadı - İmza)
[Redacted] [Signature]	[Redacted] [Signature]

Anne- Baba ikisi de yaşamıyorsa Yasal Velisinin		
Adı Soyadı	Yakınlığı	İmzası

AÇIKLAMALAR:

- 1- Bu izin belgesi, yukarıda belirtilen etkinliğe katılacak olan öğrencinin annesi ya da babasınınca (annesi, babası yaşamıyorsa yasal velisince) (2) adet doldurulup imzalanacaktır. Bir örneği okulunda saklanacak; bir örneği de ailede kalacaktır.
- 2- Cep telefonları bölümünde yer alan "Diğer" bölümüne ulaşılabilecek en yakın kişilerin adları, telefonları kesinlikle yazılacaktır.
- 3- İzin Belgesi olmayan öğrenci ilgili etkinliğe alınmayacaktır.
- 4- Gerçek dışı beyan ve imzanın sorumluluğu, belgeyi dolduranlara, imzalayana aittir.

Onaylanır,
02.11.2017
(Okul-Kurum Müdürü Adı Soyadı-İmza Mühür)

[Redacted]
Okul Müdürü

VELİ İZİN BELGESİ

ÖĞRENCİNİN			
Adı Soyadı	[REDACTED]	Baba adı	[REDACTED]
Sınıfı	81B	Ana adı	[REDACTED]
No	[REDACTED]	Cinsiyeti	K () E () <i>Yiz</i>
Doğum Yeri - Tarihi	[REDACTED]	Ev Telef.	
Cep Telefonları	Baba	Anne	Diğer
	[REDACTED]	[REDACTED]	[REDACTED]

Velisi bulunduğum / bulunduğumuz yukarıda açık kimliği yazılı okulunuz öğrencisinin, eTwinning(Avrupa Okul Ortaklıkları) Projeleri kapsamında yapılan etkinliklerde yer almasına, bu etkinliklerin resim, video vb. şekilde kayıt altına alınıp eğitim öğretime destek sağlamak koşuluyla gerekli görülen sosyal paylaşım ortamlarında yayınlanmasına izin veriyorum. Öğrencinin; "etkinlik boyunca görüntüsünün yayınlanmasından dolayı olumsuz bir durumla karşı karşıya kalındığında" her türlü sorumluluğu üstlenir, gereğini bilgilerinize arz ederim.

22.09./2017

Anne(Adı Soyadı - İmza)	Baba (Adı Soyadı - İmza)
[REDACTED] <i>[Signature]</i>	[REDACTED] <i>[Signature]</i>

Anne- Baba ikisi de yaşamıyorsa Yasal Velisinin		
Adı Soyadı	Yakınlığı	İmzası

AÇIKLAMALAR:

- 1- Bu izin belgesi, yukarıda belirtilen etkinliğe katılacak olan öğrencinin annesi ya da babasınca (annesi, babası yaşamıyorsa yasal velisince) (2) adet doldurulup imzalanacaktır. Bir örneği okulunda saklanacak; bir örneği de ailede kalacaktır.
- 2- Cep telefonları bölümünde yer alan "Diğer" bölümüne ulaşılacak en yakın kişilerin adları, telefonları kesinlikle yazılacaktır.
- 3- İzin Belgesi olmayan öğrenci ilgili etkinliğe alınmayacaktır.
- 4- Gerçek dışı beyan ve imzanın sorumluluğu, belgeyi dolduranlara, imzalayana aittir.

Onaylanır.
20.09/2017
(Okul-Kurum Müdürü Adı Soyadı İmza Mühür)

[Signature]
Okul Müdürü

Appendix C. Permission from Quizlet

Quizlet Support

Are you satisfied with your support experience?




On Jan 01, 2019 at 09:57AM PST fthtoy@hotmail.com <fthtoy@hotmail.com> wrote:

Hello, I am an English teacher working in Turkey. I have been using Quizlet as premium account for 4 years. I m also proceeding my MA study in the department of foreign language education and for my MA thesis, I have used Quizlet with my experimental group of students. There have been 2 groups of students and teachers, control group of teachers who dont use Quizlet and experimental group of teachers and students who use Quizlet. The study focusing on vocabulary learning was completed in 2018 Spring and now i am to start to write my thesis. If you don't mind, I will give information about the Quizlet and its mechanism in my thesis. I will be pleased if you don't mind. Best Regards and thanx



Quizlet Support <support@quizlet.com>
To: fthtoy@hotmail.com

Jan 3 at 8:34 PM ★

 Quizlet

Hi there,

Thanks for reaching out to us about this! Your study sounds really interesting.

It is completely fine for you to include information about Quizlet and how we work in your thesis. We would love to see how it comes out! Feel free to send a copy here when it is complete if you would like!

Of course, if there is anything else we can do to help, feel free to reach out at anytime.

-Tiffany
Quizlet Support

Appendix D. Examples of Achievement Test Items

Achievement Test

Bu testteki 50 soru 8. sınıf 8-9-10. ünitelerinin kelimelerine dair bir çalışmanın ürünüdür. Lütfen cümlelerdeki boşluklara uygun olan doğru seçeneği işaretleyiniz.

My little brother hates household _____ and he never helps our family at home. * 2 points

- chores
- games
- furniture
- advice

Tony is an untidy boy and he rarely _____ at his room. * 2 points

- does the laundry
- washes the dishes
- makes the bed
- does the homework

Appendix E. Item Examples of Survey for Students' Perceptions

Quizlet'in Öğrencilerin İngilizce Dersindeki Kelime Öğrenme Algıları Etkileri

Sevgili Katılımcı
Bu araştırma anketi ile bir Web 2.0 aracı olan Quizlet'in öğrencilerin İngilizce dersine yönelik algıları ve kelime öğrenme sürecindeki performansları, algıları ve motivasyonları üzerindeki etkilerinin ortaya çıkarılması hedeflenmektedir. Quizlet'in etkileri öğrencilerin kelime öğrenme sürecindeki başarıları, algıları ve motivasyonları bağlamında ele alınacaktır. Anket 2 bölümden oluşmaktadır ve bu bölümler Demografik Bilgiler ve Quizlet'in Etkileri bölümleridir. Anket tamamı 54 maddeden oluşmaktadır. Herhangi bir dış etmeden etkilenmeden vereceğiniz cevaplar son derece önemlidir. Anket verileri kesinlikle gizli tutulacaktır ve sadece bu tez çalışmasının amaçları için kullanılacaktır. Şimdiden tüm katkılarınız için teşekkürler

NEXT

Never submit passwords through Google Forms.

Quizlet'in Öğrencilerin İngilizce Dersindeki Kelime Öğrenme Algıları Etkileri

* Required

Quizlet'in Etkileri

Quizlet kelime öğrenmenize ciddi anlamda yardımcı oluyor mu?

*

- Evet
- Hayır
- Belki

Quizlet öğrencinin..... yönünden kelime hazinesini zenginleştirmesine yardımcı olur. (Geçerli tüm seçenekleri seçebilirsiniz) *

Check all that apply.

- Yazma
- Okuma
- Konuşma
- Dinleme

Quizlet'in kullanımı son derece kolaydı *

Mark only one oval.

1 2 3 4 5

Kesinlikle katılmıyorum Kesinlikle katılıyorum

Appendix F. Item Examples of Survey for Teachers' Perceptions

The Effects of Quizlet on Teachers' Perceptions about Students' Vocabulary Learning

Dear Colleague

This questionnaire aims at determining the effects of Quizlet, Web 2.0 tool, on teachers' vocabulary teaching and students' vocabulary learning in English classes at 8th grade. The effects of Quizlet will be related to teacher and students performance, motivation and perceptions in vocabulary learning. The Questionnaire is composed of 1 section, Quizlet Effects. The whole questionnaire involves 8 items. It is essential that you give answers to each question sincerely without being affected by other factors. The findings of the questionnaire are necessarily going to be kept confidential and only used for the goal of the study. Thanks for all of your contributions in advance.

* Required

Email address *

Your email

NEXT

Does Quizlet help your students learn vocabulary? *

- Yes
- No
- Maybe

Appendix G. Question Examples of Focal Interviews

Which activities on Quizlet are your favorite activities?

What are the advantages of Quizlet over traditional methods and materials?

What do you think about the drawbacks of Quizlet? If there is any?



Appendix H. Examples of Interview Responses

R: Which activities on Quizlet are your favorite activities?

T1: Students enjoy using Quizlet and they do not need to apply other classical methods like writing with pencil, particularly matching activity attracts them. Diversity of games also attracts the students

T2: Students are not dependent upon the class program to study vocabulary thanks to Quizlet and this increases their motivation.

T4: Students can control the type of activities, choose the number and type of questions

T2: Students learn the meanings of the words more quickly than they did before

T5: Students can hear the pronunciation of the words whenever they want since Quizlet provides pronunciation in almost all activities.

T7: Students' control of their individual performance and Quizlet settings in all the activities enable them to build their autonomy on vocabulary learning.

T8: Students can choose the type of test questions and they can even choose the words to be practiced, this is the individual control

T4: My students mostly do not go out in the breaks because they wait for their turn to play matching

T1: IWBs provided my students have the experience of gamification while using Quizlet for vocabulary learning, a gift of FATIH project.

R: What are the advantages of Quizlet over traditional methods and materials?

T5: These students are crazy about technology and they are digital natives, digital kids

T7: Our students are more interested in technology than we are, as teachers.

T3: In the past, we could not memorize the words and we used different methods like word boxes etc. but Quizlet enables memorization amusing

T1: Students can set the activities according to their performance and system gives immediate feedback

T2: Students can choose the activity among Flashcards, Test, Learn, Matching, Gravity, Spell, Write etc

T6: Quizlet provides the learners with the option to reinforce previously learned or missed words according to their individual progress. Learners can also decide on what they will practise with their selected activity.

T8: When students study vocabulary on Quizlet, as teachers we do not need to spend time on vocabulary learning at least for spelling and pronunciation

T8: Students can see all the words in different activities more than once.

R: What do you think about the drawbacks of Quizlet? If there is any?

T1: Some students do not have PC or mobile devices and internet connection at their homes.

T3: Students can misuse the permission to use computers or mobile devices from their parents.

T6: Students can also prepare flashcard sets of vocabulary and these sets are used by other students.

T2: Students cannot test their fluency and speaking performance.

T8: Students cannot use the learned words in sentence level. They are just pronouncing, writing the words, this means that they are just recognizing the words.

T8: Students are not given any context to see and use the words. Target words should also be given in context.

CURRICULUM VITAE

FATİH TOY

Birth Place and Date: Elmalı / 25.01.1985

Marital Status: Single

Foreign Language: English

Bachelor's Degree

: Boğaziçi Üniversitesi Eğitim Fakültesi
Yabancı Diller Eğitimi Bölümü İngiliz
Dili Eğitimi Anabilim Dalı Lisans
(2003-2008)

Conferences

: Toy, F.; Ateş, H.& Büyükyavuz, O.
(2015). Keeping a Teaching Journal.
Çanakkale 18 Mart University. The 3rd
ULEAD Congress: International
Conference on Applied Linguistics.
“Current Issues in Applied Linguistics”.

Toy, F. & Ateş, H. (2015). Analyzing
the Item Characteristics of a Mock
Exam. Çukurova International ELT
Teachers (CUELT) Conference” held at
Çukurova University