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A MASTER'S THESIS



**VOCABULARY TEACHING THROUGH  
WEB 2.0 TOOLS: A COMPARISON OF  
KAHOOT! AND QUIZLET**


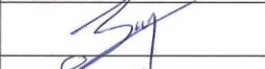

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To my family...

**Başlık:** Web 2.0 Araçları Yoluyla Kelime Öğretimi: Kahoot! ve Quizlet Karşılaştırması

**Yazar:** Utku KURTOĞLU

## ÖZET

Bu yarı-deneysel çalışma Web 2.0 araçlarının 7.sınıf öğrencilerinin kelime öğrenimlerinde önemli bir etkisinin olup olmadığını bulmayı amaçlamaktadır. Çalışma nitel ve nicel verilerin birlikte kullanıldığı karma yöntem araştırma desenine sahiptir. Nicel veri ön-test ve son-test yoluyla, nitel veri ise yarı-yapılandırılmış görüşme formları aracılığıyla toplanmıştır. Çalışmanın örneklemini Kırklareli'nin Özel Bahçeşehir Koleji Ortaokulları'nın birinde öğrenim gören 29 7.sınıf öğrencisi oluşturmaktadır. Öğrenciler sınıflara çalışma öncesinde okul yönetimi tarafından yerleştirildiklerinden araştırmacı çalışmayı 2 deneysel grup şeklinde bu sınıflarla sürdürmüştür. Çalışma 2020-2021 Eğitim-Öğretim Yılı'nın güz döneminde uygulanmış olup toplamda 5 hafta sürmüştür. Web 2.0 araçlarının kelime öğreniminde etkili olup olmadıklarını belirlemek amacıyla ön-test, son-test ve yarı-yapılandırılmış görüşme formlarının sonuçları analiz edilmiştir. Çalışmanın sonucunda her iki uygulamanın da (Kahoot! ve Quizlet) 7.sınıf öğrencilerinin kelime öğrenimlerinde etkili olduğu görülmüştür.

**Anahtar kelimeler:** Kelime öğrenimi, Web 2.0 araçları, Kahoot!, Quizlet, Oyunlaştırma

**Title:** Vocabulary Teaching through Web 2.0 Tools: A Comparison of Kahoot! and Quizlet

**Author:** Utku KURTOĞLU

## **ABSTRACT**

This quasi-experimental study aims to find out whether Web 2.0 tools have a significant impact on vocabulary gains of 7<sup>th</sup> grade students. The study was conducted with a mixed methods research design combining both quantitative and qualitative data. Quantitative data were collected through pre and post-tests while qualitative data were collected through semi-structured interview forms. The participants of the study were 29 7<sup>th</sup> grade students studying at one of the Private Bahçeşehir Middle Schools in Kırklareli-TURKEY. The students were assigned to classes (groups in this study) by the school administration, so the researcher conducted the study with 2 pre-prepared classes and utilized them as 2 experimental groups. The study was conducted during the Fall Term of 2020-2021 Academic Year and it lasted for 5 weeks. The results of pre-test, post-test and semi-structured interview forms were analyzed to see whether Web 2.0 tools were effective in vocabulary learning or not. Consequently, results of the study showed that both Web 2.0 tools (Kahoot! and Quizlet) were found to be effective in vocabulary learning of 7<sup>th</sup> grade students.

**Keywords:** Vocabulary learning, Web 2.0 tools, Kahoot!, Quizlet, Gamification

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## **LIST OF ABBREVIATIONS**

**IMI:** Intrinsic Motivation Inventory

**L1:** First Language

**L2:** Second Language

**MALL:** Mobile-Assisted Language Learning

**RQ:** Research Question

**SPSS:** Statistical Package for Social Sciences

**STS:** Short-term Store

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## CHAPTER I

### INTRODUCTION

#### 1.1. Introduction

Once seen as an additional feature for career development, learning a second language in 21<sup>st</sup> century is substantially important not only for personal development both also for globalization and catch up with the rapid advances in communication technologies (Emecen, 2019). When examined carefully, it is clear to see that most of the European and overseas countries have high rates of citizens who speak second language fluently. With the rapid improvements in technology, however, there are many applications for people wishing to learn a second language. Without doubt, learning a second language includes learning language skills such as listening, speaking, reading and writing (Açıköz, 2019). With regard to these areas, vocabulary are seen as the most primary feature (Folse, 2004). Through vocabulary, speakers are able to express their opinions to other people.

Constituting one of the primary areas of language learning, vocabulary learning is substantially significant. During vocabulary learning process, vocabulary development plays a vital role. Through vocabulary development, learners find a chance to improve their vocabulary competencies (Çakır, 2019). Development of vocabulary is acknowledged as a precondition so as to be accomplished in other four skills (Toy, 2019). Vocabulary competency offers learners a variety of ways to express their opinions and makes them better communicators in a language. However, in order to become competent and achieve a good communication, learners need to have a good accumulation of vocabulary (Oljira, 2017).

With a view to increase the vocabulary competencies of students, vocabulary are able to be taught in many ways. There are teachers who teach vocabulary by showing the written form of the word and explanation of its meaning. However, this kind of methods may have lost its popularity as learners of 21<sup>st</sup> century like learning through Internet and smart tools such as laptops and smartphones (Açıkgöz, 2019). These learners are called as *digital natives* and they are surrounded by tools of digital world such as computers, cell phones and video games. In such a digital world they are surrounded by, the teachers' assumption concerning the uniformity of the students and their learning methods over time would not be valid (Prensky, 2001). For this reason, teachers have started to adapt technology into their lessons with regard to learning styles of their students. During this process, they have mostly utilized from Web 2.0 tools which offer two way interaction between teacher-student or student-student. These tools also create a natural and rich learning environments, boost cooperation and autonomy (Aşıksoy, 2018).

There are studies in literature that prove the efficacy of Web 2.0 tools on vocabulary learning (Wichadee and Pattanapichet, 2018; Sanosi, 2018; Montaner-Villalba, 2019; Çınar, 2019; Açıkgöz, 2019; Emecen, 2019). With regard to former studies, the researcher investigated the efficacy of Web 2.0 tools on vocabulary learning of 7<sup>th</sup> grade students in the current study. Kahoot! and Quizlet tools were compared in terms of vocabulary teaching achievement. This achievement was tested by a vocabulary test and students' opinions were gathered through semi-structured interview forms.

## **1.2. Statement of the Problem**

Each language has its own vocabulary. Through vocabulary, speakers of that language are able to express their experiences, feelings and thoughts to others. However, without vocabulary this communication would be limited. Thus, vocabulary constitutes an important part of a language. Vocabulary are composed of words. Words come together and constitute vocabulary. Longman Dictionary of Language Teaching



& Applied Linguistics (2010) defines vocabulary as “a set of lexemes, including single words, compound words and idioms” (p.629). Kamil and Hiebert (2005) also define vocabulary as “the knowledge of meanings of words” (p.3). Vocabulary knowledge is one of the fundamental aspects of language learning. Vocabulary knowledge determines the comprehensiveness of the speaker in that language. With limited vocabulary knowledge, speaker is able to speak and express his/her opinions only to some extent. For this reason, accumulation of vocabulary is critically important (Oljira, 2017).

Vocabulary covers a prominent field in language learning. By keeping language learners in mind, however, it cannot be concluded that there is one-size-fits-all strategy in vocabulary learning. In language learning, each learner is accepted unique and the most useful teaching strategy is tried to be found by the teachers. However, vocabulary teaching has been regarded by means of word lists in Turkey. Students are supposed to copy those word lists to their notebooks. When vocabulary learning lacks context, however, it becomes no more than a list of memorization (Anadol, 2015). In this sense, teaching techniques which are appropriate for the needs of students would be utilized.

Luckily, with the rapid developments in technology, teachers have a number of options which they can utilize in their lessons. Alqahtani (2015) and Al Mubarak (2017) indicate that there have been a diversity of vocabulary learning strategies that can be utilized both by the teachers and learners. Technology integration into teaching has been a new phenomenon and it has been becoming popular day by day in Turkey. Most of the classrooms have smartboards and students are given tablets. There have been a number of applications used for educational purposes. Kahoot! is one of them. Through Kahoot!, teachers can create online quizzes and students can access to quizzes their smartphones, tablets or computers (Dellos, 2015; The Kahoot! Guide, 2016). Students can also be asked to create their own quizzes and those quizzes can be done as a whole class activity in the classroom. By placing students into the center of learning, teachers can boost vocabulary knowledge of their students (Çakır, 2019). Quizlet is another educational Web 2.0 tool that has been recently used in classrooms.

With its variety of game modes, Quizlet offers students informative learning environments both inside and outside classrooms. These learning environments can be created by the teachers. Afterwards, both teachers and students can include a variety of flashcards to learn and revise vocabulary (Toy, 2019).

### **1.3. Purposes of the Study**

The main purpose of this study is to decide whether Web 2.0 tools are effective in vocabulary learning of 7<sup>th</sup> grade students or not.

Second purpose of this study is to see which Web 2.0 tool will be more efficient in vocabulary learning than the other.

The last purpose of this study is to gather students' views related to Web 2.0 tools and make inferences from their experiences in terms of vocabulary learning.

### **1.4. Hypotheses of the Study**

Researcher has two hypotheses about the study. Firstly, it is hypothesized by the researcher that Web 2.0 tools will have a positive impact on vocabulary knowledge of 7<sup>th</sup> grade students as 21<sup>st</sup> century learners enjoy learning through technology.

Second and last hypothesis of the study is that Kahoot! will have a more positive impact on students' vocabulary knowledge compared to Quizlet as it includes a competitive nature.

### **1.5. Research Questions**

This study was conducted in order to find answers to following research questions.

RQ1. Are Web 2.0 tools efficient in vocabulary learning?

RQ2. Is there a significant difference between Kahoot! and Quizlet in terms of vocabulary learning ?

RQ3. What are the learner views on the use of Web 2.0 tools in classroom?

### **1.6. Significance of the Study**

When the literature concerning vocabulary teaching through Web 2.0 tools and technology- integrated vocabulary teaching is thoroughly examined, it is seen that there have not been many studies related to the area. From those studies, there is not such a study comparing Kahoot! and Quizlet in terms of vocabulary teaching. Last and most importantly, due to COVID 19 pandemic, schools all over the world have been closed for a long time. Thus, this study is highly important as it is related to distance education. Usefulness of Web 2.0 tools will prove that Web 2.0 tools can be utilized during distance education.

### 1.7. Definition of Terms

**Gamification:** Gamification is a set of activities and processes to solve problems by using or applying the characteristics of game elements (Kim, Song, Locke & Burton, 2018).

**Generation Y:** A generation who are young, smart, libertarian, creative and technology-addict (Oral, 2013).

**Generation Z:** A generation who are born into technology also called as internet generation and nano-technology children (Oral, 2013).

**Web 2.0 tools:** Web 2.0 tools are the next generation of the Internet (Dibella & Williams, 2015).

**Kahoot!:** Kahoot! is a free online classroom response system designed to allow instructors to quickly and easily create question-based learning games that can be used to assess student learning, review concepts, teach new material, and/or facilitate classroom discussions (Graham, 2015).

**Quizlet:** Quizlet is a free online flashcard program that supports various vocabulary training approaches (Robertson, 2015).

**Mobile Assisted Language Learning (MALL):** Use of mobile technology in language learning (Miangah & Nezarat, 2012).

**Pre-test:** A test given before learning has occurred (Longman Dictionary of Language Teaching & Applied Linguistics, 2010).

**Post-test:** A test given after learning has occurred or is supposed to have occurred (Longman Dictionary of Language Teaching & Applied Linguistics, 2010).

**Intervention:** A learning process that takes place between pre-test and post-test.

**Vocabulary:** A set of lexemes, including single words, compound words and idioms (Longman Dictionary of Language Teaching & Applied Linguistics, 2010).

### **1.8. Limitations of the Study**

This study is limited only to 29 7<sup>th</sup> grade students studying at one of the Private Bahçeşehir Middle Schools in Kırklareli-TURKEY. There are only two groups of students and those groups are pre-prepared by the school administration. One of the limitations of the study is the lack of control group. Both of the groups are experiment groups. Second limitation is time span. This study is limited only to five weeks and one lesson hour of exercise each week is going to be conducted. Third limitation is that this study is limited to 30 words which are going to be taught. Fourth limitation is that only two Web 2.0 tools are going to be utilized in this study. Lastly related to short time span, post-test results may be affected by the pre-test results.

### **1.9. Assumptions of the Study**

In this current study, it is assumed that the sample in this study (29 7<sup>th</sup> grade students) represent the whole population of the school where it is conducted. Secondly, the chosen instruments are appropriate for the study. Once and for all, all the students having taken part in the study answered the questions reliably and shared their opinions honestly.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

#### **2.1. Presentation**

This study investigates the impacts of Kahoot! and Quizlet on students' vocabulary learning and students' views on Kahoot! and Quizlet. This chapter consists of a literature review of vocabulary, strategies in vocabulary learning, second language learning, differences and similarities between first and second language learning, learning vocabulary in second language, gamification, mobile assisted language learning (MALL), Web 2.0 tools and related studies on gamified vocabulary learning.

#### **2.2. Vocabulary**

##### **2.2.1. Vocabulary vs Word**

In every language, speakers use words to convey what they mean to others. Without words, it would be difficult for speakers to express their feelings, emotions, ideas and experiences. Words help speakers express themselves in any way to share their experiences. When all the words come together, they constitute vocabulary. Longman Dictionary of Language Teaching & Applied Linguistics (2010) defines vocabulary as “a set of lexemes, including single words, compound words and idioms” (p.629). Cambridge Online Dictionary (2020) defines vocabulary as “all the words that exist in a language, or that are used when discussing a particular subject.” Kamil and Hiebert (2005) define vocabulary as “the knowledge of meanings of

words” (p.3). Oljira (2015) defines vocabulary as “a large stalk of words in a language” (p.1). In addition to these definitions, Al Mubarak (2017) states that vocabulary is the indispensable part of a language as it has high importance in language learning (p.2). Without vocabulary, meaning cannot be conveyed, so both oral and written communication cannot find a place for itself.

In language, vocabulary has a huge place and vocabulary have many sub-branches. Kamil and Hiebert (2005) state that vocabulary has two sub-branches; oral and print vocabulary. Oral vocabulary is the accumulation of words used when speaking and writing. However, print vocabulary is the accumulation of words used when reading and listening. They also state that two sub-branches of vocabulary of knowledge are productive and receptive vocabulary. Productive vocabulary, as the concept implies, is used while using productive skills, speaking and writing. However, receptive vocabulary is used while using receptive skills, reading and writing (p.3). Productive vocabulary is also called as active vocabulary as it is used during an active process that the learner is involved in. Receptive vocabulary, however, can be called as passive vocabulary as it is used when the learner is passive during the process. Mondria and Wiersma (2004) define productive vocabulary knowledge as the ability to translate a word from first language (L1) to second language (L2). They also define receptive vocabulary knowledge as the ability to translate a word from second language to first language (pp. 86-87). As it is clearly seen, knowledge of vocabulary is linked with all four skills, thus having significant importance in a language.

As discussed previously, vocabulary is formed when words come together. Longman Dictionary of Language Teaching & Applied Linguistics (2010) defines word as “the smallest of the linguistic units which can occur on its own in speech or writing” (p. 636). According to Oxford Online Dictionary (2020), the definition of word is “a single unit of language that means something and can be spoken or written.” Carter (2002, as cited in Emecen, 2019) defines word as the smallest meaningful unit of a language (p.7). Vygotsky (as cited in Thornbury, 2002) defines word as a microcosm that lies in human realization (p.1.) Word is small and significant

component of a language that carries meaning and helps speakers express their ideas and emotions. Words are found in each language and it is nearly impossible to establish a healthy communication without the existence of them. Words serve as a tool to achieve a healthy communication between the agents and receivers. Words are analyzed as content and function words in the following chapter.

### 2.2.2. Content vs Function Words

Words are found in languages to serve different purposes. While some words provide meaning, others may inform readers/speakers about the time of an event or who is involved in that event. To clarify the purposes of the words, Thornbury (2002) divides words into two categories as *grammatical (function) words* and *content words*. *Grammatical (function) words* are placed in sentences to achieve the grammatical flow of the sentence. They do not serve in a sentence to convey meaning. They are found in sentences generally as *prepositions, determiners, pronouns* and *conjunctions*. For instance; *You on the between* cannot be evaluated as sentence as words neither individually nor together do not carry meaning and do not express something to reader. These words only make sense when they are used together with meaningful words like *content words*. *Content words* can be defined as words having and carrying meaning in a sentence that help speakers to express their ideas, emotions, thoughts and beliefs. *Content words* are usually show themselves in sentences in the form of *nouns, verbs, adjectives* and *adverbs* (pp.3-4). For instance; *Teresa has not seen your red car and blue bicycle in front of your house recently* is a sentence including both *content* and *function words*. While *nouns, verb, adjective* and *adverb* express meaning, *preposition, conjunction* and *determiner* do not express meaning and help *content words* become clearer and provide a successful flow of a sentence above. *Content* and *function words* constitute an important part of vocabulary in a language and lead learners to become competent in their native languages or foreign languages that they learn. To achieve this competency, learners need to have more knowledge about



vocabulary and different types of words of a language. Thus, word knowledge is examined in detail in the following chapter.

### 2.2.3. Word Knowledge

Words are used to convey meaning either in written or oral communication. To convey this meaning, speakers need to have a good deal of word knowledge. Only with a good deal of word knowledge, speaker of a language can express his/her ideas, emotions, feelings and knowledge. In this sense, Nation (2013) divides word knowledge into three categories; knowing word's form, meaning and use and explains each one in a detailed way.

**Table 1.**

*What is involved in knowing a word*

R= Receptive P= Productive

Form	spoken	R	What does the word sound like?
		P	How is the word pronounced?
	written	R	What does the word look like?
		P	How is the word written and spelled?
	word parts	R	What parts are recognisable in this word?
		P	What word parts are needed to express the meaning?
Meaning	form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	concept and referents	R	What is included in the concept?
		P	What items can the concept refer to?
	associations	R	What other words does this make us think of?
		P	What other words could we use instead of this one?
Use	grammatical functions	R	In what patterns does the word occur?
		P	In what patterns must we use this word?
	collocations	R	What words or types of words occur with this one?
		P	What words or types of words must we use with this one?
	constraints on use	R	Where, when, and how often would we expect to meet this word?
		P	Where, when, and how often can we use this word?
	(register, frequency ...)		

(Nation, 2013, p.49)

As it is seen on the table above, knowing a word deals both with knowing its productive and receptive knowledge. Here, it is better to evaluate the sub-branches of three categories one by one. What is meant by spoken form of the word is the ability to differentiate sounds during the speech clearly as well as pronounce it well so other people can understand it without having difficulty (Schmitt, 2000, p.53). Clarity during the speech is another important feature in a language. If the words are pronounced clearly during the speech, no problem occurs related to understanding it. Nation (2013) also states that spoken form of the word includes the ability to identify the word when it is heard and the ability to present the spoken form to express the meaning (p.65). Written form of the word, on the other hand, is related to how the meaning is assigned to word by the reader when it is read. Nation (2013, p.70) states that spelling has a substantial importance in terms of developing familiarity with written form of the word. Spelling has a direct impact on written form of the word as it defines the word's form in context.

However, spelling changes up to speaker and language. So, it may bore problems in written language. Moseley (1994, as cited in Nation, 2013, p.70) states that when English speakers and speakers of other languages are compared, English spelling system creates irregularity for learners of English as their first language. Schmitt (2000, pp. 48-49) investigates the topic from a different angle and states that spelling strategies that speakers use change over time. He also believes that speaker's L1 knowledge has much effect in shaping his/her L2 knowledge. Word parts is another sub-branch of word form and plays a crucial role in knowing a word. Nation (2013) states that vocabulary learning will be easier if words are learnt by giving attention to their stems and affixes (p.72). Stem and affixes are very fundamental features of a word. Stem is simply core of the word. Stem is the first basic element of the word that gives the meaning. Affixes, on the other hand, are added to the end of the word and changes the word's meaning every time they are added, so different meaningful words come out. Nation (2013) states that knowing frequent affixes help learners identify them in contexts, eases vocabulary learning and can be used as a vocabulary learning strategy (p.73). Webb and Nation (2017) also state that word part is a technique on

which the word is divided into its constituent parts and each part's meaning is connected to whole word. In this way, meaningful words are created.

Second category of word knowledge is meaning. Meaning can be defined as what is intended to be transmitted to the receiver by the agent. Meaning has a special place in communication. Thanks to meaning, communication makes sense and people understand and share what they want to explain with each other. In short, meaning is what makes sense in context. Meaning includes three sub-branches; form and meaning, concept and referents, associations. Form and meaning are closely related to each other. Form can be defined as the physical existence of a word in context. However, only form of the word is not sufficient to understand what it means. Readers can only figure out what a word means if they set up a relationship between form and meaning of the word. Nation (2013) states that it is easier to connect a relationship between form and meaning of the word if the same form represents the same meaning (p.74). Here he gives examples of loanwords. Loanwords are words that are taken from other languages. Loanwords may be present in their original forms or similar forms in languages. Seeing a loanword through reading, readers easily understand what it means as they make a connection to their L1. Another feature that Nation (2013) remarks is that form-meaning connection can be easier if sound or shape of the word form is connected to meaning (p.74). For example, during a conversation when the agent uses an emoji which represents peace, receiver clearly understands that agent tells him/her something related to peace. Second sub-branch of meaning is concept and referents. Concept mostly deals with an idea. Longman Dictionary of Language Teaching & Applied Linguistics (2010, p.112) defines concept as “the general idea or meaning which is associated with a word or a symbol in a person's mind.” Concept is often thought of as a mental existence of an idea. However, Cambridge Online Dictionary (2020) defines referent as “the person, thing or an idea that a word, phrase or object refers to.” Simply, referent may be a person, an idea or an expression which is referred to. A concept may have many uses and it is hard to learn all of them by learners. Instead, Nation (2013) suggests that instead of learning all uses of a word, it

is better to learn the underlying concept of a word. He also remarks that if the word is defined with all its uses, it decreases the amount of words to be learnt (p.77).

When underlying concept of a word is understood, it eases learner's vocabulary learning because learner will probably not have difficulty in learning words as they are related to each other. Similarly, Decarrico (2001) supports Nation's idea and states that instead of learning individual words, by learning word families learners can maximize their vocabulary learning (p.287). Association is the last sub-branch of meaning. Oxford Online Dictionary (2020) defines association as "an idea or a memory that is suggested by somebody/something; a mental connection between ideas." Simply, association can be defined as a mental connection that helps individuals remind the word that they want to remember. For example, the word *circular* is an association if the learners want to remind the word *ball*. Similarly, many other words can be used instead of a particular word. The word *lion* associates such words as *animal*, *leopard*, *roaring*, *paw*, *laziness*, *wildness* and all these words remind learner the word *lion*. These words are connected to each other in terms of meaning. When the learner reads/hears the word, it reminds him/her of other words which are related to that word in terms of meaning. Decarrico (2001) states that vocabulary learning becomes more effective if they are learnt with associations. Yet, she warns teachers about words that have very close meanings such as synonyms and antonyms as they make vocabulary learning difficult and sometimes confusing for learners (p.288). To sum up, it can be concluded that associations are helpful for learners as they ease vocabulary learning.

Meaning of a word implies what is intended to be transferred from the agent to the receiver in context. However, meaning is not just the dictionary definition of a word and has a changeable nature in communication. What is intended to be told may sometimes be misunderstood by others. So, examining meaning in a detailed way improves learners' knowledge and correct use of the meaning. Lexical (denotational) meaning is mostly accepted individual meaning of a word that can be looked up in dictionary. Lexical (denotational) meaning covers important part of word knowledge

as learners mostly learn the words through their dictionary meanings. However, words are not always used with their lexical (denotational) meaning. In these situations, they are used with their metaphorical meaning. Metaphorical meaning can be described as meaning of a word that may mean something other than its lexical (denotational) meaning. Metaphorical meaning is widely used in communication and especially in poetry. Harmer (2007) stresses that metaphorical meaning allows speakers to go beyond the word's lexical (denotational) meaning and allows them to explain their opinions and feelings better (pp.36-37). Grammatical (structural) meaning refers to meaning that is conveyed through a structural order accompanied by other words. For example; *car like much I this so* is a group of words which does not convey meaning in this structure. However, each word of this group carries meaning individually. If this group of words are structured in a sentence as *I like this car so much*, words carry meaning as a group so grammatical meaning is achieved. Nation (2013) also points out the importance of inferential meaning in context. He defines inferential meaning as meaning that is inferred from the context in combination with speakers' world knowledge. He also states that in contexts where lexical meaning is abstract, the meaning can be inferred from context by evaluating the relationships of words between each other (pp.77-78). Sometimes when the words are used together, they may mean something different than their actual meaning. Harmer (2007) states that what a word means and what it puts forward may be different (p.36). For instance, if the word *dazzling* is used together with diamond, it suggests a positive meaning in sentence. However, if it is used with accident, it may suggest a negative meaning in sentence. As discussed above, a word does not only have one meaning. Some words have lists of different meanings on dictionaries and this situation sometimes confuses learners how to choose the right meaning for a right context. On dictionaries, words mostly are given with their synonyms and antonyms. Harmer (2007) defines synonym as words having the same or very similar meaning of a word. For instance; *fast* and *quick* are synonyms that carry the same/similar meaning. Yet, words also carry the opposite meanings. According to Harmer (2007), antonyms are the opposite meanings that words carry (pp. 35-36). For instance; *big* and *small* are two words that carry opposite meanings. Other than similar and opposite meanings, words can also have multiple meanings. These words are called as polysemous words. For instance; *bar* is a place

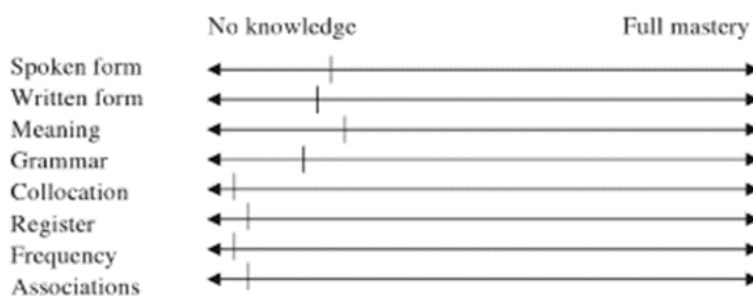
where people can drink and chat. However, *bar* also means a pattern of an object. In addition, *bar* has such meanings as advocacy, barrier, group of lawyers and justice. Polysemous words have different but related meanings lined under one entry on dictionaries. There are also other word types that carry different meanings. Homonyms is one of them. Nation (2013) defines homonyms as words having identical written and spoken forms however totally different meanings. For instance; the word *fair* in *This is not fair* and *fair* in *There will be a fair in our city* have the same written and spoken form however carry totally different meanings. While the first word carries the meaning of *reasonable*, the latter carries the meaning of *carnival*. Another type of words are called as homographs. Homographs are words that have identical written but different spoken forms. *Palm* is a good example for homographs. The meaning of *palm* in ‘*Look at this palm tree! It is beautiful.*’ and ‘*The coin is in my palm*’ is totally different although both words have identical written forms. Homophones, on the other hand, can be defined as just the opposites of homographs. Homophones have identical spoken however different written forms. For instance, *affect* and *effect* have different written forms however their pronunciations are very alike. They are also different in that while the first one is a verb, the latter is a noun (p.76). Another term that is used to define the relationship between meanings of words is hyponymy. Hyponymy is a sub-branch of a subordinate. Here, subordinate serves as umbrella term and includes many hyponyms. For instance, *flower* is a subordinate and includes such hyponyms as *rose*, *daisy*, *violet*, *hyacinth*, *orchid*, *tulip* and *lotus*. As it is seen clearly, meaning serves as a fundamental feature in knowing a word and it is important on a large scale.

Use is the last sub-branch of knowing a word according to the Nation’s table above. Even if form and meaning of the word are well-known, without the right use, it is erroneous to use the word in context. Its form may be well-structured. However, if its use is not meaningful, then it does not fit to the context. Use of a word has three sub-branches; grammatical functions, collocations and constraints on use (register, frequency). Grammatical functions play a vital role in knowing a word. Grammatical functions can simply be described as what functions words serve in sentences grammatically. For instance; in the sentence *Jack hit John*, Jack serves as subject and

John serves as object. When the Jack is used at the end of the sentence, *John hit Jack*, Jack serves as object and John serves as subject. Here, verb of the sentence, hit, has an important role in sentence. Word that is used before verb serves as Subject and verb that is used after verb serves as Object. Collocations is the second sub-branch of the umbrella term, use. Decarrico (2001) defines collocations as words that mostly come together or co-occur with each other and states that learning collocations has a positive aid to long-term memory (p.292). Collocations can simply be described as words that are used together with other words. Pawley and Syder (1983, as cited in Nation, 2013) state that people speak fluently or choose word patterns that make them seem like native speakers because they store lots of word patterns that are used together (p.83). In addition, Nation (2013) remarks that knowing word patterns also eases learning certain words as many of them can be found both in L1 and L2 (p.83). Last sub-branch of use is constraints on use (register, frequency). Register decides where and when to use certain words in context as it is not appropriate to use every word for a particular context. For instance, before starting to speak, speaker in a meeting probably starts his talk with asking “how do you do?” to audience. However, two friends can ask each other “what’s up?” Here register serves in two ways; formal and informal. While the first one is formal, the latter is informal. Harmer (2007) lists 6 variables that affect the choice of register; setting, participants, gender, channel, topic and tone (p.28). Here setting describes where the conversation takes place. The word choice in a classroom and at a picnic can’t be the same. Participants are also an important factor for word choice. Word choice varies when participants are governors in one context and close friends in the other. Word choice also varies while addressing different genders. Harmer (2007) states that men and women use different words when addressing each other. During conversation, women use more accepting words than men and they generally prefer staying more quiet during mixed-gender conversations (p.28). Channel describes if the communication is written or spoken. If the written communication takes place between a resident and a mayor, the resident chooses formal words in his/her writing. However, if it takes places between two friends, informal words are more probably used. For spoken communication, in addition to the examples above, a teacher can be given as another example. A teacher lecturing in a classroom of 100 students and a teacher lecturing online to 10 students will probably

choose different words. Another factor affecting word choice is topic. While lecturing about geography and physical education, teachers will probably use different and field-related words. Tone is the last variable that affect word choice. Harmer (2007) states that formality, informality, politeness and impoliteness play a vital role in word choice (p.28). Frequency of the word shows the learners how frequently that word is used in certain contexts. For instance; in a finance context, words like *rate*, *currency*, *inflation*, *interest* and *bond* are expected to be found as all these words are related to finance. However, it is very rare to expect such words as *forest*, *cream* and *geometry* to be found in a finance context. From an educational perspective, Nation (2013) states that teachers' word choice has an impact on students' use of the word. So, useful words should be chosen in classroom context during lessons otherwise learners may be confused which words to use. Nation also states that constraints on use has a changeable nature across culture (p.84). In English, the adjective *cute* means pretty, however it carries other meanings like foxy and cunning with it. However in Turkish, while the first meaning is often accepted, the latter meanings are not found.

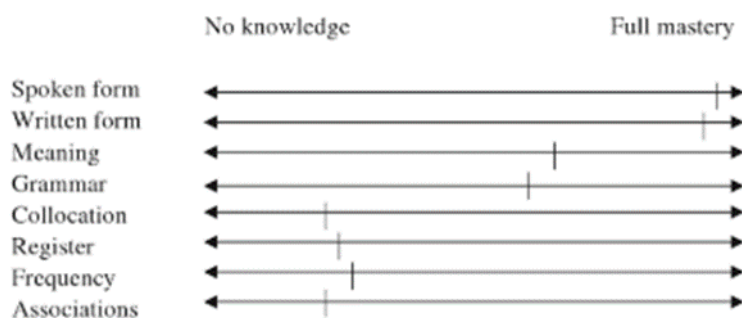
While knowing a word, its form, meaning and use need to be well acquired for further uses in communication. Knowing a word and its mastery is a process and it takes time to master word knowledge. Schmitt (2010) describes the word mastery process below by considering all aspects of knowing a word discussed previously.



**Figure 1.** Early knowledge of a word (Schmitt, 2010, p.37).

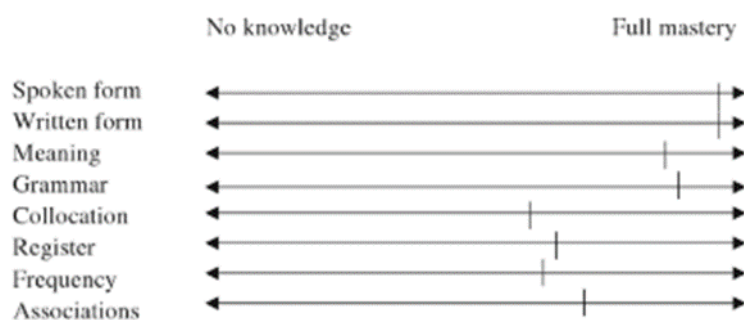


When the Figure 1 is analyzed, it is clear to see that all aspects of word knowledge are at a quite low level and word knowledge is very far from mastery level during early stages. The next phase of word mastery is showed on the figure 2 below.



**Figure 2.** Developing knowledge of a word (Schmitt, 2010, p.38).

When Figure 2 is analyzed, spoken and written forms (productive vocabulary) are seen very close to the full mastery level while meaning and grammar are close to mastery level. Yet, the rest features are still far from mastery level. The last phase of word mastery is shown on the figure 3 below.



**Figure 3.** Advance knowledge of word (Schmitt, 2010, p.38).

Figure 3 above tells the reader that full mastery of knowledge is mostly achieved. Most of the items have been achieved by the learner and the learner has made a good progress during the learning process. What can be concluded from this

part is that vocabulary and knowing a word are both complex terms and process. However much it takes time and requires patience, vocabulary is an important and beneficial feature of a language. In order to comprehend vocabulary learning process, it would be a good idea to examine memory types in the following chapter.

#### **2.2.4. Short-term memory, working memory and long-term memory**

As discussed above, word knowledge and mastery are important factors affecting learners' vocabulary learning. However, sometimes learners face difficulties after the process. They state that they cannot remember and use the words they studied before during a conversation. Even if learners study hard, words can be forgotten and this is quite natural for language learning. However, during a conversation it is an unpleasant situation for learners to forget crucial words. Forgetting words is a situation dealing mainly with memory. When words are repeated to be learnt, they are stored in learners' brains. However, forgetting is one of the most common thing that every person encounters in his daily life so it should not discourage learners. Many studies have been conducted to understand how knowledge is stored in brain and what alternatives can be applied to prevent from forgetting words. In his book, Thornbury (2002) lists three systems related to memory; *short-term store*, *working memory* and *long-term memory*. *Short-term store (STS)*, as its name implies, is the brain's capability of storing items only for a limited and short time which lasts only up to a few seconds. For instance; a mother tells her son to buy egg, flour, bread, milk and chocolate. In order not to forget what is told to him, that child needs to repeat the things that will be bought. Until he buys them, that child repeats the items and when he buys them, he does not need to repeat them again. So, *short-term store* is only available and necessary for a short time. However, learners are not as lucky as the child at the example to learn only a few words. Learning a few words is not already enough to be competent in a language. So, learners need to learn more words and keep them in mind for longer period. Here comes another term *working memory*. *Working memory* deals with words for longer period of time up to twenty seconds. In *working memory*, words are stored more than they are done in *short-term store* and learners can do manipulations on the

words. Learners can make judgments, understanding new rules and learn new words by using *working memory*. New information can also be come across by exterior sources. For instance; when a student is instructed about simple past tense by his teacher, s/he comes across this information for the first time and internalize this information to learn it. This process takes place in his/her *working memory*. *Working memory* also stands between *short-term store* and *long-term memory*. What can be inferred from this sentence is that via *working memory*, learner can make connection with his/her *long-term memory* and call the necessary information to remember it and s/he easily can make comparison. Yet, twenty seconds are not enough to learn and internalize information when the complex nature of vocabulary learning is taken into account. Here comes the cure for permanent learning. The third system related to memory is *long-term memory*. When it is compared to *working memory*, *long-term memory* has more capacity and more ever-lasting storage that has advantage against time. However, even if knowledge can be classified in *long-term memory* as *unforgettable*, it can actually be forgotten if the necessary study is not done. Studies suggest that learners should do repetition, retrieval studies, pace their studies according to their unique learning styles, use the learnt vocabulary to restore them in their long-term memory, personalizing the knowledge that is learnt, visualizing the learnt knowledge to store it in long-term memory, using mnemonics to ease retrieving the information, keep their learning motivation high and raising their conscious attention (pp. 23-25). Memory types dealing with vocabulary learning have been discussed in this chapter. However, there are a number of different strategies that can be adapted while learning vocabulary by the language learners. Thus, the focus of the next chapter will be those strategies dealing with vocabulary learning.

### 2.3. Strategies in Vocabulary Learning

Learning vocabulary is a base to start learning a language. Al Mubarak (2017) indicates that vocabulary is an essential part of language learning. He also states that in order to learn and increase the capacity of vocabulary learning, various vocabulary learning strategies need to be employed (p.2). Alqahtani (2015) also emphasizes the importance of diversity in language learning by giving example of experts recommending so many techniques for learners to learn in an easier way (p.31). On the other hand, Goundar (2015) specifies that vocabulary learning strategy is a tool which help learners acquire the language (p.355). Nation (2001, p.352) explains what a vocabulary learning strategy needs to possess to be effective in use:

1. Involve choice, that is, there are several strategies to choose from
2. Be complex, that is, there are several steps to learn
3. Require knowledge and benefit from training
4. Increase the efficiency of vocabulary learning and vocabulary use

Complex nature of vocabulary was discussed at the previous chapter. In terms of complexity, vocabulary learning has many common points with vocabulary. Like every complex term, vocabulary learning also has some sub-branches. Cruz-Wiley (2010) divides the vocabulary learning into two parts, direct vocabulary learning and indirect vocabulary learning. In direct vocabulary learning, students learn the vocabulary that they do not use in their daily lives. Direct vocabulary is more specific and it is learnt through direct instruction. She suggests that by teaching technical words before reading, using the vocabulary in different contexts and repeating vocabulary exposure, direct vocabulary learning can be achieved (p.8). Direct vocabulary learning deals with terminology that is harder for learners to learn. However, in many contexts students face those words and they need to be well known in order to comprehend the context. If these words are taught or learned before reading, it probably eases comprehension as learners will be knowing the meaning of the words while reading

the text. Yet, only learning the dictionary meaning does not mean that the word is well understood. In order to learn a word better, use of that word in different contexts is highly valued as those uses are remembered by the learners. Use of words in different contexts also means that those words are seen and used many times. This is what is called as repetition and it is highly important in vocabulary learning. Cruz-Wiley (2010) defines indirect vocabulary learning as the indirect way that learners benefit while learning everyday vocabulary. She adds that by engaging learners in daily conversations, reading aloud to them and giving them time to read on their own, indirect vocabulary learning can be achieved (pp. 7-8). Indirect vocabulary learning is easier when it is compared to direct vocabulary learning. First, indirect vocabulary learning does not require learners to learn specific words which are also called as terminology. As discussed above, these words are more challenging to learn than everyday vocabulary. Also, indirect vocabulary includes words that are used at every moment of the day. For instance, a learner can use *good* for the morning, for a jacket, for breakfast, for a friend or for a car. During the day, use of these words more than once and in different contexts enforces repetition and it affects the learner's long-term memory positively in terms of indirect vocabulary learning. When these statements are taken into consideration, it becomes clear that both direct and indirect vocabulary learning are important sub-branches of vocabulary learning.

As mentioned previously, vocabulary learning is as complex as vocabulary itself. In this sense, learners have tried different strategies to overcome the complexity of vocabulary and they have focused on its mastery for years. Each learner is an individual and unique. In this sense, it is quite normal for learners to employ different strategies to decide the most beneficial ones for themselves. While a learner may find one strategy very useful, the other may employ a combination of two strategies. Vocabulary learning strategy is as unique as learners themselves. In this sense, Nation (2001) presents a taxonomy dealing with vocabulary learning strategies and explain each one in a detailed way.

**Table 2.***A Taxonomy of Kinds of Vocabulary Learning Strategies*

(Nation, 2001, pp.353-354)

General class of strategies	Types of strategies
Planning:  Choosing what to focus on and when to focus on it	Choosing words  Choosing the aspects of word knowledge  Choosing strategies  Planning repetition
Sources:  Finding information about words	Analysing the word  Using context  Consulting a reference source in L1 or L2  Using parallels in L1 and L2
Processes:  Establishing knowledge	Noticing  Retrieving  Generating

Planning is the first phase to decide what word to focus on and when to focus on it. Vocabulary choice should be based on learners' goals (Nation, 2001, p. 354). According to their goals, learners should choose words to achieve those goals. Also, word choosing should serve the different aspects of the words (form, meaning and use) that were discussed previously. When the word is chosen, the learner should be aware if s/he knows the meaning of the word and how to use it in the right context. Choosing strategy is mostly up to learners. As mentioned before, each learner is unique and has

unique learning style. So, learners should decide which strategy (or sometimes combination of strategies) is/are the most appropriate for themselves. For instance, while a learner can learn vocabulary through reading, the other can learn vocabulary through both reading and writing. While one can learn through using a word in a sentence, another can learn it through listening in a song. As stated earlier, because learning styles are unique, learners should choose the appropriate strategies by considering their learning styles. Planning repetition is the last feature of planning section. The importance of repetition in vocabulary learning was discussed previously. In order to achieve vocabulary learning, repetition of target vocabulary needs to be well planned and applied. It shouldn't be forgotten that the more the words are practiced, the more they are remembered.

After learners plan what words to focus and when to focus on them, they need to find sources to gain a wider knowledge about words, their different aspects related to word knowledge (form, meaning, use) , word parts (affixes and stems) etc. Dictionaries are the most fundamental tools for learners on their ways to vocabulary learning. Dictionaries include a good deal of knowledge related to forms, categories, uses and pronunciations of the words. Additionally, if learners want to focus their attention on phrasal verbs, they can find resources focusing only and specifically to phrasal verbs. Other than dictionaries, word lists that can be found online or in learners' books are highly practical and effective in vocabulary learning in that they include words for a specific unit. For instance, second unit of a book can be about farming and in the beginning or at the end of the unit, all the words related to farming are shared as a list and it eases vocabulary learning. This also reinforces the uses of words in contexts. Contexts are valuable and helpful sources to infer the meaning of the words. In addition, those word lists, dictionaries, books accompanied with teachers and native speakers are both trusted sources and referents for learners (Nation, 2001, p.356). Lastly, learners can use associations between their first and second languages in terms of words' meanings. In this way, they use their L1 as a source and they can infer meanings of various words.

After words are focused and researched by using the necessary and trusted sources, they are processed by the learners. Nation (2001) divides processing into three sub-branches: Noticing, retrieving and generating. He states that in order for words to be learnt, they need to be noticed by the learners. Words can be noticed on learners' books, dictionaries, word lists or notebook. Also, words can be noticed orally (p.357). For instance, during a lesson time, teachers use many different words. One of these words may be interesting for learners because of its pronunciation. So, noticing takes places. After words are noticed, they are retrieved. Nation (2001) defines retrieval as the remembrance of the words previously read or seen. Each time a word is met, it vivifies the connection between the cue and knowledge that is remembered. Nation also states that the retrieved knowledge of a word may be receptively its meaning or use and productively its form (p.357). Sometimes a word is remembered by its use in a context that is interesting or somehow attractive to learner. Similarly, a word can be remembered thanks to its form. For instance, a learner can easily remember an adverb that s/he has rarely met before when s/he reads a sentence and meets this adverb at the end of the sentence. Similarly, it becomes probably easy for learner to recall a rarely-used adjective in a sentence which includes everyday vocabulary. After words are noticed and retrieved, finally they are generated by the learners. Nation (2001) states that generation can be achieved through instantiation (visualization of the examples of a word), word analysis and semantic-mapping. He also states that creating contexts where words are used in the sentences are highly important during the generation phase. Finally, he concludes that using key words in sentences, using and meeting words in contexts that are related to all four skills are very valuable for learners in terms of knowing and adapting the words to new and self-created contexts (pp.357-358). What can be concluded by considering Nation's table and explanations above is that from planning to processing, vocabulary learning takes place through a long duration and many strategies are employed to achieve vocabulary learning by learners.

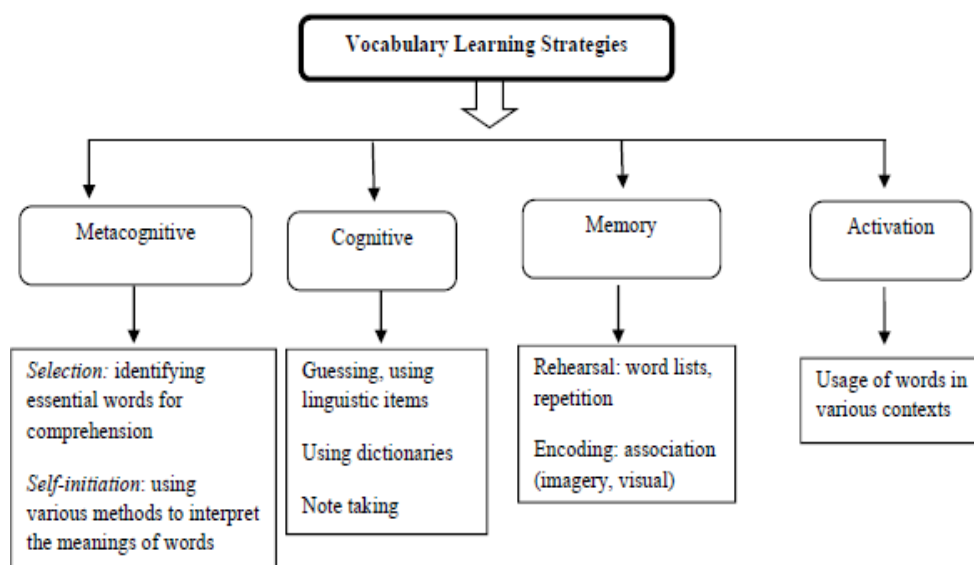
In addition to strategies that were presented above, there are various vocabulary learning strategies that learners employ to achieve their vocabulary learning. In his PhD thesis, Easterbrook (2013) suggests learners to use such strategies



as word lists, repetition, contextualized words, association tasks, keyword method and guessing from context (pp.29-30). Miangah and Nezarat (2012) state in their article the importance of mobile devices in vocabulary learning. They suggest that by sending e-mails and SMS, pictorial annotations and extra vocabulary learning exercises via mobile phones, teachers can boost their students' vocabulary learning (p.313). Additionally, Chien (2015) believes that flashcards are useful tools for vocabulary learning. In this sense, she conducted a case study to see the effectiveness of three online flashcard websites (Quizlet, Study Stack and Flashcard Exchange) on 64 Taiwanese college students in 2013 through three months, from February to April at a university in Taiwan. The major data were collected through three online flashcard websites (Quizlet, Study Stack and Flashcard Exchange), classroom observations and small group interviews. Her study revealed that use of online flashcard websites raised students' motivation and vocabulary knowledge in terms of words' form and meaning. Lui (2013) believes that games have a considerable amount of impact on students' vocabulary. In order to test her hypothesis, she conducted a study to see the effectiveness of two online games (Fling the Teacher and Jeopardy) with 101 students who were aged between 18 and 20 studying their second semester of first year in different undergraduate programs at a university in China. However, during the year that the study was conducted, the students had to take English or Business English lessons. During the procedure, students were instructed how to create vocabulary quizzes and each lesson an online quiz was chosen by the teacher and solved together with students. After this, students were given a survey to find out if they liked learning vocabulary through games or not. Results of the study and survey revealed that use of games in vocabulary learning affected students' attitudes positively towards language learning. Study also revealed that students preferred use of games to learn vocabulary as they are fun, exciting and boost long-term retention of vocabulary. In addition to these strategies, Webb and Nation (2017) present six vocabulary learning strategies believing their effectiveness on vocabulary learning. They state that autonomy is an important factor in vocabulary learning. Autonomy can simply be defined as individual willingness and responsibilities that are taken by learners to learn and internalize the target information. In this sense, their first suggestion is that learners need to find ways to learn L2 vocabulary outside the classroom. As learners encounter more L2

vocabulary, it is easier for them to recall and learn them. They can encounter L2 vocabulary outside the classroom through listening to music, reading books written in L2, watching films, playing games etc. However, only meeting the vocabulary is not enough to learn it. Vocabulary are learned better if they are used in contexts. In this sense, their second suggestion for learners is to use L2 outside the classroom. Teachers can help learners by assigning them extra duties and activities which involve the use of vocabulary. They may be short-length video presentations, dialogues with parents or friends or written texts. Third strategy Webb and Nation suggest is learning word parts. The importance of learning stems and affixes of words was discussed previously. They help learners create more detailed sentences by providing them more words to use. The fourth strategy is guessing from context. Contexts are helpful resources for vocabulary learners. They help learners thanks to their fruitful vocabulary diversity. The fifth strategy is using dictionaries effectively. Dictionaries are probably the most used tool by the learners. Their learner-friendly and easy-to-use nature covers an important part of learners' vocabulary learning. Webb and Nation (2017) state that dictionaries include information about a word's spelling, pronunciations, definitions, antonyms, synonyms, example sentences and frequency in a language. However, teachers can encourage dictionary use by asking the students to look up words' meanings, the use of words in example sentences, look up their synonyms and antonyms. Finally, they suggest the use of flashcards as flashcards are portable, easy to use and effective way of learning vocabulary. Teachers can also use flashcards inside the classroom while presenting the new context and revising the topics explained before. Flashcards can be bought and prepared at home. In addition, digital flashcard websites like Quizlet can be used to boost vocabulary learning.

In addition to the strategies that presented above, Gu and Johnson (1996, as cited in Goundar, 2015) presents different vocabulary learning strategies that can be used by learners to achieve their vocabulary learning below.



**Figure 4.** Illustration of the categorization of strategies Gu and Johnson (1996, as cited in Goundar, 2015, p.180)

As it is presented on the figure above, Gu and Johnson (as cited in Goundar, 2015, pp.179-180) divide vocabulary learning strategies into 4 groups: metacognitive, cognitive, memory and activation strategies. Metacognitive strategies deal with choosing words according to context and construe their meanings. Learners adapting metacognitive strategies know what words are important to learn for them and they choose words that serve to their goals. Cognitive strategies mostly deal with guessing from context, using dictionaries and note taking that most of the learners already prefer using them. Memory strategies are related to repetition of words and associations of words to be remembered better. Finally, activation strategies deal with the activation of words in different contexts by being used by the learners. In this way, words are used in different contexts and they become active in use. Related to vocabulary learning strategies that mentioned above, Cengizhan (2011) conducted a study to assess the frequency of vocabulary learning strategies at a public high school in Edirne-TURKEY with fifty 10<sup>th</sup> and 11<sup>th</sup> graders in 2007-2008 Academic Year Spring Term. She also aimed to find out if vocabulary learning strategies varied depending on gender. She included metacognitive, cognitive, determination, social and memory strategies in a questionnaire having forty one statements and administered it to

students. The results of the study showed that while metacognitive strategies were the most frequently used, cognitive strategies were the least frequently used strategies by the students. In terms of gender, while female students preferred using determination strategies, male students preferred metacognitive strategies mostly. Finally, the research results revealed that cognitive strategies were the least used strategies by both male and female students. What can be concluded from this chapter is that learning is as unique as individuals themselves. Every vocabulary learning story requires unique and sometimes combination of unique vocabulary learning strategies chosen according to goals of the learners. Learners are offered numerous strategies to apply to their vocabulary learning. With the help of their teachers, they can choose the most suitable strategy/strategies and can turn vocabulary learning into both an achievement and fun. Next chapter will have a detailed look at second language learning.

#### **2.4. Second Language Learning**

Second language learning can simply be defined as the additional language that is learnt to communicate with the speakers of that language. Cohen (2014) defines second language (also called as target language) learning as the language being learnt in an environment where that language is spoken. He states that second language learning environment can be created when speakers of that language are found and communicated (p.8). In learning/teaching context, native speakers are good examples for second language learning. Even if English is taught to students as their second language, if they do not use this language to communicate with the speakers of that language, it turns out to be a foreign language. However, schools employ native speakers who provide students the source of second language. In classrooms, students are supposed to speak the second (target) language to communicate with native speakers. They also hear instructions that native speakers give them and in this way they have an authentic source in classroom other than books, videos and audio records that help them boost their second language learning. In this millennium age, the importance of second language is such highly valued that many companies require it

for job recruitments. In a world that English is widely accepted and spoken as a second language by many countries, learning English as a second language has a wide place in language learning context.

However, learning (whether L1 or L2) is a unique process and requires the examination of unique characteristics of language learners. Many researchers (e.g. Lightbown and Spada, 1993; Dörnyei, 2005; Cook, 2008) have studied the characteristics of second language learners and listed many crucial items. Cook (2008) lists the characteristics of language learners as *motivation, attitude, aptitude, age factor, intelligence, sex differences, level of first language* and *empathy*. Additionally in his book Dörnyei (2005) examines the characteristics of language learners from psychological perspective and states that *personality, aptitude, age, intelligence, motivation and self-motivation* play a vital role in second language learning. In their book, Lightbown and Spada (1993) assert the importance of *intelligence, aptitude, personality, motivation, attitude, learning style* and *age factor*. They also state that even if it is better for second language learners to be surrounded by and exposed to language as early as possible, in some situations when the learners do not have educational and language backgrounds, it may have negative effects such as loss of their first language and it may cause academic and personal problems (pp.49-50). In its nature, second language learners are aware of their learning. They learn a second language not just because it is a compulsory lesson. Second language learners may learn a second language because they may need it for job applications, to socialize with people from other countries or to gain knowledge of other cultures. They may adapt a learning program according to their learning style and they may motivate themselves by considering what advantage they will have when they learn that language. When second language learning is examined from the teacher perspective, Cook (2008) states that some factor such as *age, aptitude, intelligence* and some areas of *personality* can't be affected by teachers. What he suggests teachers is that they have to admit their students' differences and provide each of them opportunities to utilize. What can be concluded from this chapter is that both first language learning and second language learning have their own unique features and language learners should bear these

features in their minds to become good learners. Differences and similarities of learning first and second languages will be discussed in detailed in the following chapter.

## **2.5. Differences and Similarities between First and Second Language Learning**

Language learning is such a complex process that learners sometimes face difficulties and come to a point of stop learning. However, language is the most fundamental tool to improve communication between people. Thanks to language, people share their ideas, thoughts, beliefs, experiences and comments with each other. Also by learning a language, learners can understand the cultures of other countries. Yet, learning the first language (also called as native language and mother language) and the second language have both similarities and differences. It cannot be expected for a baby and an adult to learn a language in the same way. Many factors affect language learning. Spratt, Pulverness and Williams (2011) examined L1 and L2 learning differences related to age factor, context and way of learning.

**Table 3.**

*Comparison of L1 and L2 learning differences through age factor.*

	<i>L1 learning</i>	<i>L2 learning (in the classroom)</i>
<i>Age</i>	<ul style="list-style-type: none"> <li>- Learning starts when the learner is a baby, continues through the early years of childhood, and lasts into adolescence for some kinds of language and language skills, e.g. academic writing (writing for school or university).</li> <li>- Babies learn language at the same time as their cognitive skills (the mental processes involved in thinking, understanding or learning) develop.</li> <li>- Learners are motivated to learn language as they need to communicate.</li> </ul>	<ul style="list-style-type: none"> <li>- Usually starts in primary school and/or secondary school. It may also start or continue in adulthood.</li> <li>- Primary learners are still developing many of their cognitive skills.</li> <li>- Secondary school learners have already developed many of their cognitive skills by the time they start learning a foreign language. Their attitudes towards learning and learning the foreign language may or may not be mature (fully developed).</li> <li>- Adult learners have fully developed cognitive skills. They are likely to show maturity in their attitudes to language learning.</li> <li>- Adult and some secondary learners may already have expectations (beliefs that something will or should happen) about how languages should be learnt, may have past experience of learning a foreign language, and may or may not be fully motivated to learn the language.</li> </ul>

(Spratt et al., 2011, p.67).

When the table 3 above is examined thoroughly, it is seen that the time learning starts differs between L1 and L2 learning. While L1 learning starts when the learner is a baby, L2 learning usually starts when the learners start going to school. Another difference is related to cognitive skills. While cognitive skills of babies start developing while they start learning the language, it is totally different for L2 learners from different age groups. It is clearly stated on the table above that while primary schoolers freshly develop many of their cognitive skills, secondary schoolers achieve developing most of their cognitive skills and adults most likely show maturity in their cognitive skills. Lastly, as discussed previously, L1 learners excessively need learning their native language to communicate while L2 learners need to learn L2 mostly for different purposes such as having a hobby, meeting a new culture, having promotion

etc. Additionally, Table 4 below compares L1 and L2 learning through the context and different ways of learning.

**Table 4.**

*Comparison of L1 and L2 learning differences through context and ways of learning.*  
(Spratt et al., 2011, p.68).

	<i>L1 learning</i>	<i>L2 learning (in the classroom)</i>
<i>Context and ways of learning</i>	<ul style="list-style-type: none"> <li>• By exposure to and picking up language, hearing the language around him/her all the time.</li> <li>• By learning a lot of language in chunks.</li> <li>• By wanting and needing to communicate, i.e. with strong motivation.</li> <li>• Through interaction with family.</li> <li>• By talking about things present in their surroundings, and by doing things.</li> <li>• By listening to and taking in language for many months before using it (silent period).</li> <li>• By playing and experimenting with new language.</li> <li>• By having lots of opportunities to experiment with language.</li> <li>• By getting lots of praise and encouragement for using the language.</li> <li>• By hearing simplified speech.</li> <li>• By rarely being corrected. Instead people often reformulate what the child has said.</li> </ul>	<ul style="list-style-type: none"> <li>• Sometimes through exposure but often by being taught specific language items.</li> <li>• Often by focusing on structures and individual words.</li> <li>• With strong, little or no motivation to communicate.</li> <li>• Through interaction with a teacher and sometimes with classmates.</li> <li>• Often by talking about life outside the classroom.</li> <li>• Often by needing to produce language soon after it has been taught.</li> <li>• Often by using language in controlled practice activities and being corrected. Sometimes by playing and experimenting with new language.</li> <li>• The learner is not exposed to the L2 very much – often no more than about three hours per week.</li> <li>• Teachers vary in the amount of praise or encouragement they give learners.</li> <li>• The learner may receive little individual attention from the teacher, and not interact much.</li> <li>• Teachers usually simplify the language they use.</li> <li>• Teachers often correct learners. Learners are often asked to produce correct language. They may or may not be given opportunities to make mistakes and experiment.</li> </ul>



According to the Table 4 above, it can be inferred that while L1 learning is boosted mostly by engaging learners with the natural environment around them, L2 learning mostly occurs by focusing on grammatical patterns in a specific learning environment for a limited time in the classroom. Similarly, while L1 learning comes out as a motivational need for learners to communicate, L2 learners may find strong or no motivation to learn the second language depending on their goals. Another difference is the amount of encouragement given to learners. While L1 learners are abundantly encouraged when they use the language, encouragement of L2 learners depend widely on their teachers. According to Table 4 above, the last difference between L1 and L2 learning is the rate of correction for learners. Because parents, caretakers or relatives want L1 learners to produce words, they do not always correct their misuses of language. However, because right forms of language are aimed to be achieved by learners, L2 learners are mostly corrected by their teachers. In addition to these differences, Spratt et al. (2011) state that while L1 learning is mostly successful, L2 learning may not be so as it includes different factors. Additionally, Nemati and Taghizadeh (2013, p.2480) state that affective filter plays an important role in language learning. Young learners are more motivated to produce words and they are not shy when compared to adults. For this reason, McLaughlin (1987, as cited in Nemati and Taghizadeh, 2013, p.2480) states that they have an advantage both in L1 and L2 learning when compared to L2 learning adults who are usually afraid of making errors.

Language learning process (whether L1 or L2) shows some similarities as its nature requires. When the studies are meticulously examined, these similarities show themselves in literature. For instance; Spratt et al. (2011) state that L2 learning is similar to L1 learning in that it sometimes occurs outside the classroom and learners are exposed to language despite being less in quantity when compared to L1 learners (p. 68). Bialystok (1988, as cited in Llurda Giménez, 2000) explains the similarities of L1 and L2 learning from the cognitive perspective and states that learners already have ready-to-use knowledge in their minds. By using this knowledge, L1 learners can make sense the new information and L2 learners ease their learning process by utilizing their L1 knowledge (p.261). Additionally, Spratt et al. (2011) asserts on the Table 4 above

that interaction and motivation are two important factors propounding similarities between L1 and L2 learning (p. 68). Despite their different quantities, both L1 and L2 learners are motivated to learn languages while L1 learners aim learning L1 to communicate, L2 learners do it for many reasons. Also with its depending degree, both L1 and L2 learners interact with their environment to boost their learning process. Lastly, simplified language and encouragement play a mutual role in language learning both for L1 and L2 learners despite their different rates. What can be concluded from this chapter is that both L1 and L2 learning have unique characteristics and language learners may ease their learning process if they take these characteristics into account. Next chapter will focus on a sub-branch of language learning: Learning Vocabulary in Second Language.

## **2.6. Learning Vocabulary in Second Language**

As discussed previously, vocabulary constitutes an important part of language learning. Through vocabulary, meaning is conveyed in communication. Vocabulary is important both in L1 and L2. While L1 vocabulary is acquired with the help of environment and parents, as mentioned in previous chapters, L2 vocabulary is learnt by operating many strategies. As it covers a valuable place in second language, field of vocabulary learning has been given importance by second language learners recently. However, due to its uniqueness, each second language learning requires learners to adapt appropriate learning strategy/strategies. For this reason, many researchers (Decarrico, 2001; Thornbury, 2002; Folse, 2004; Cook, 2008; Hanson and Padua, 2011; Webb and Nation, 2017) have focused their attention to find appropriate vocabulary learning strategies in L2. Decarrico (2001) importantly reports that learning strategies should assist both grasping the meaning of a new word and solidifying it when it is come across in different contexts. She also suggest learners to employ such strategies as guessing meaning from context, using keyword method, using vocabulary notebooks and suggests teachers to encourage students to use such strategies as learning words by relating them to learners' lives, saying a word aloud

while studying, boosting repetition (pp. 290-291). Thornbury (2002) believes that vocabulary size is an important factor in second language learning and states that L2 learners need to know at least 2.000 word families in order to guess the word meaning from the context. He also adds strategies such as using keywords, word cards, using dictionaries and keeping records. Folse (2004) emphasizes the importance of word lists and states that despite causing controversies, word lists are useful L2 vocabulary learning resources and explains that L2 learners probably choose word lists either because their education programs include them or they choose it depending on their unique learning differences. Folse (2004) also suggests that word lists may be more useful if they do not include much information (p. 3). Additionally, Folse (2004) clarifies guessing from context strategy and indicates that contrary to popular belief, L2 learners are disadvantaged in terms of vocabulary size when they are compared to native speakers of that language as native speakers have a larger vocabulary size than L2 learners do (p. 6). Cook (2008) lists many strategies that help L2 learners master L2 vocabulary. He states that strategies such as guessing from the situation or context, using a dictionary, making deductions from the word form and linking cognates can be helpful for L2 learners to understand the meanings of the words. Besides, he asserts that repetition and rote learning, organizing words in mind and linking to existing knowledge are helpful strategies that L2 learners use in order not to forget the already-learned vocabulary. Hanson and Padua (2011) suggest L2 learners to operate L2 vocabulary learning strategies such as learning word parts, evaluating context clues and dictionary use. Webb and Nation (2017) believe that L2 vocabulary learning is based on autonomy and state that many learning strategies serve to develop autonomy of L2 learners. They list that L2 learners may find ways to encounter and use L2 vocabulary outside the classroom, learn word parts (affixes and stem), guess from context, use dictionaries effectively and use flashcards to enhance their L2 vocabulary learning. This chapter is aimed to summarize L2 vocabulary learning and fruitful vocabulary learning strategies that may help learners enhance their L2 vocabulary learning. As this study concerns 21<sup>st</sup> century language learners (they will be called as Generation Z in the following chapter), it would be appropriate to examine those learners and their parents in a detailed way in the following chapter.

## 2.7. Generation Y vs Generation Z

This millennium's learners are called as digital learners/natives who are born into technology and they are *native speakers* of technological devices such as computers and internet (Prensky, 2001, p.1). These native speakers of technology who like learning through games are termed as Generation Z and their parents are termed as Generation Y. Oral (2013) makes the definitions of Generation Y and Generation Z and state that digital learners are also called as Generation Z who cannot even imagine how life was without technology as they are already born into technology unlike their parents who are called as Generation Y. Generation Y was termed as they have the habit of questioning and they experienced digital transformation period (pp.17-19).

In order to understand their relationship with technology, it would be better to understand the features of Generation Z first. First of all, it is highlighted that Generation Z is totally different than their parents, Generation Y. As discussed previously, digital learners of Generation Z are born into technology and they cannot imagine how the lives of their parents were as they did not experience the digital transformation period. They experienced the technology itself and started to learn it and live with it as of their first days. These learners can stay connected with each other constantly thanks to technology. They can also make video calls and chat online both verbally and visually with each other. However, having a number of opportunities may turn into a disadvantage for them in terms of lack of concentration and resulting in failure. They reject the traditional ways of learning. They want to experience activities which let them be creative rather than being taught. They want to learn with games rather than memorization activities (Oral, 2013, pp. 19-20).

In accordance with the needs of digital learners, the teaching methodologies have also experienced technology and these two have been combined day by day. Digital learners' close dexterity and interaction with technology have impressed many researchers and made them think of possible ways to integrate technology into learning and the term gamification was coined. Gamification has offered both teachers and

learners a number of fruitful ways of teaching, learning and revising new topics. Additionally, gamification also serves as assessment tool for teachers to be used at the end of each term/topic in an enjoyable way. What may be inferred from this chapter is that gamification has been a recently-used method and meets the needs of digital learners who like learning while having fun. A detailed description of the term *gamification* is presented in below chapter.

## 2.8. Gamification

Gamification has been a popular term over recent years. Simply, gamification can be defined as the sub-branch of technology in educational setting. Many researchers have focused their attention to define gamification. Şahin and Samur (2017) define gamification as the design of an outline of behavioral theories and use of games to drive the required behaviors through motivation and success which are applied in environments termed as non-game environments (p.2). Kiryakova, Angelova and Yordanova (2014) define gamification as “an integration of game elements and game thinking in activities that are not games.” Kim, Song, Lockee and Burton (2018) also define gamification as “a set of activities and processes to solve problems by using or applying the characteristics of game elements” (pp.27-28). In his paper, Glover (2013) states that gamification serves as prompter for competitive learners and motivate their productive behaviors while demotivating the unproductive ones (p.1999). As the sentence clarifies, gamification aims to raise competition while enhancing learning and motivation. Motivation is a fundamental factor in language learning. Without motivation, learners do not find a reason to learn new things. However, if learners are motivated to do so, they find a real reason to learn. Faiella and Ricciardi (2015) state that game elements may actually raise intrinsic motivation of learners by transforming tedious activities into attractive ones (p.16). Glover (2013) additionally states that there are many factors that may help learners to become more motivated. The first one is *leaderboards*. *Leaderboards* show the performance of the

learners as lists and enhance their motivation through the feeling of competition. The second factor is *prizes*. *Prizes* aim to enhance engagement and vary according to learner types. *Prizes* also motivate learners to achieve further in order to acknowledge them. The third factor is *achievements*. *Achievements* are another type of motivators that are found in the shape of badges and can be added to online learner profiles while impulsing learners to achieve the given tasks (p.2001). Lee and Hammer (2011) compare schools and game elements and state that schools already have game elements. They give points or badges to students which later turn into grades and level up as a result of their success (p.2). Additionally, games improve learners' cognitive, social and emotional skills. Through games, learners explore the patterns through exploration. When applied appropriately, game-based activities transform students' emotions from negative to positive. Also through games, learners acquire new roles and it helps them to get rid of their shyness (pp. 3-4).

As a popular and recent method, gamification owns both positive and negative sides. Lee and Harmer (2011) state that gamification has positive sides such as engaging and motivating students, offering teachers fruitful tools both while teaching and rewarding their students and boost learners to reach their full potential in learning. However, if this method is not used according to what it requires, it will probably cause negative effects. Firstly, students may get used to learn only when external prizes exist (p.4.) Even if the implementation of gamification to education changes the traditional education style and make learning more enjoyable and interesting, it is important for teachers to balance the success and failure as students may become demotivated when they cannot reach the prizes. So, while implementing gamification method to education, teachers need to ensure that they reach all the students. Lastly, Şahin and Samur (2017) suggest that use of gamification method at schools where traditional teaching methods are dominated may be effective in enhancing teacher and student performance. Also through gamification, topics that may not be attractive to students can be transformed into attractive ones. Additionally, gamification may offer teachers a chance to update themselves and their performances (p.17). As this subtitle presents, gamification carries an extra importance for learners of 21<sup>st</sup> century and it is going to be immensely beneficial and more understandable to

evaluate this term with Mobile-Assisted Language Learning (MALL) in the following chapter as they are inter-related in that Mobile-Assisted Language Learning (MALL) has strong bond and includes features in itself related to gamification.

## **2.9. Mobile-Assisted Language Learning (MALL)**

The existence of technological devices cannot be abnegated in 21<sup>th</sup> century. Starting with room-sized computers and evolving to pocket-sized smartphones, technological devices are readily available everywhere and every time for people. The needs of people have required a change in technological devices. Formerly, people needed computers and telephones only at home. However, with the changes in every part of the daily life, people have needed technological devices everywhere and every time. Being essential for people through the requirements of 21<sup>th</sup> century, technological devices have also appeared in the field of language learning and the term Mobile-Assisted Language Learning (MALL) has been put forward. Many researchers have focused their effort to define what MALL is. Kukulska-Hulme and Shield (2008) define MALL as “learning mediated via handheld devices and potentially available anytime, anywhere” (p.274). Miangah and Nezarat (2012) define MALL as “use of mobile technology in language learning” (p.313). With the appearance of MALL, many researchers believe that traditional language learning has been replaced and a better language learning has taken the place of traditional language learning. Many researchers (Chinnery, 2006; Kukulska-Hulme and Shield, 2008; Saran, Seferoglu and Cagiltay, 2009; Kukulska-Hulme, 2012; Viberg and Grönlund, 2012; Miangah and Nezarat, 2012; Kim and Kwon, 2012; Hsu, 2013; Stockwell and Hubbard, 2013) have conducted studies to clearly examine MALL and its unique characteristics. In their study, Kim and Kwon (2012) state that related to the popularity of mobile devices, learning has changed over time and those devices offer various learning chances, goals and needs. They also state that thanks to mobility that mobile devices serve, learners do not have barriers for learning, in contrast they have more freedom and personalized learning environments (pp. 33-34). Similarly, Saran et al. (2009) state that thanks to their unique features such as mobility, localization and personalization, mobile devices

take learning out of classroom and create appropriate learning environments (p.99). In such a world that mobile devices are used each second, learning cannot be expected to take place only at schools. With their mobility, learning can take place at everywhere and every time.

Mobile Assisted Language Learning (MALL) offer many advantages to language learners. Stockwell and Hubbard (2013) state that mobile devices that are used for language learning are small in size and portable. When compared to desktops, mobile devices have more personal and social purposes of use (pp.3-4). Additionally, in her article, Kukulska-Hulme (2012) lists the advantages of MALL as quick access to needed information or help, resilient use of time and space, conformation to individualized habits, motivation and a variety of preferences, continuum of learning regardless of location and perfect chance to keep learning while doing daily life activities such as walking (p.1). Also in their study, Miangah and Nezarat (2012) clearly explain advantages and disadvantages of language learning through the use of mobile devices and assert that learners can continue learning in a non-classroom environment whether they are online or offline. Also portability and connectivity of mobile devices allow learners to fulfill the requirements of language learning no matter where or when they want to learn. Another advantage of mobile devices are their price. When compared to computers, mobile phones are more inexpensive and such features as SMS and e-mail offer both learners and teachers to stay connected (pp. 310-311).

In spite of many effective advantages they offer, mobile devices have many disadvantages. Chinnery (2006) states that through mobile devices, learning is reduced to screen-size and availability of mobile devices are not easy-to-access for every part of the world. Also, the prices of those devices may be costly for some educational institutions. Additionally, MALL offers limited nonverbal communication, limited lengthiness of texts, deficiency of cultural context and limited social interplay. One of the most important disadvantage of MALL can be the problems experienced during



connection. Learners may have difficulty in connecting to virtual learning environments as those environments mostly need a good quality of internet connection (p. 13). Similarly, Miangah and Nezarat (2012) state that most of mobile devices are not produced for language learners to fulfill what their teachers assign them. Having small screens, mobile devices presents reading difficulties for language learners. What can be concluded from this chapter is that even if language learning is effective when it is done in classrooms with teachers, it can be reinforced via using mobile devices. MALL helps learners a lot in environments where teachers do not exist. In this way, learning can be carried out in environments other than classrooms. These environments are called as Web 2.0 tools and they will be clarified in the following chapter.

### **2.10. Web 2.0 Tools**

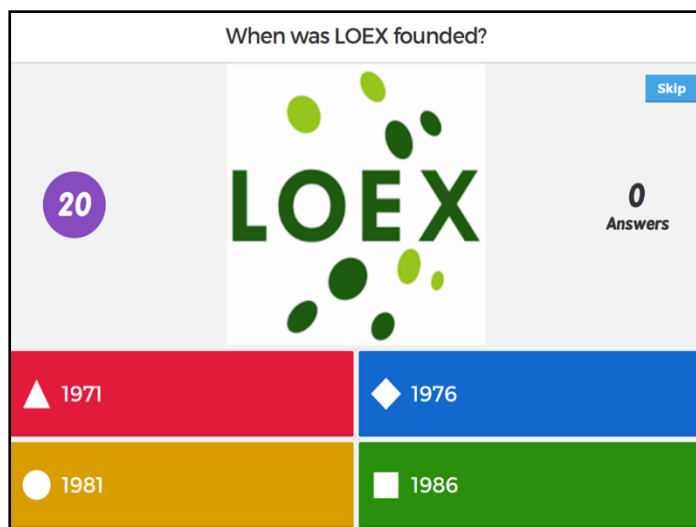
In 21<sup>st</sup> century learning and teaching, Web 2.0 tools cover a considerable place and hold unique popularity among students. However, existence of Web 2.0 tools naturally require the existence of Web 1.0 tools, so in order to understand Web 2.0 tools, it is better to examine Web 1.0 tools first. Koçak Usluel and Mazman (2009) state that Web 1.0 tools such as television, radio, e-mail and forums offered only one-way communication and their biggest disadvantage was deficiency of interaction (p.819). Similarly, Aşıksoy (2018) predicates that the emergence of internet eventuated Web 1.0 tools which offered one-way communication and limited to texts and images (p.240). Deficiency of interaction and limitedness of content creation required the creation of what is called today as Web 2.0 tools. Firstly coined by Tim O'Reilly in 2005, Web 2.0 tools offer yielding activities both to learners and teachers. Dibella and Williams (2015) define Web 2.0 tools as “the next generation of the Internet” and state that they offer learners collaborative learning environments through communicating with each other (p.75). Aşıksoy (2018) additionally states that Web 2.0 tools strengthen the relationship not only between teacher and learner but also between learner and learner by maintaining a variety of fruitful learning environments

(p.241). Digital natives of 21<sup>st</sup> century like creating their own content and using individualized web pages. Through blogs, wikis, podcasts and a variety of social networks, they make use of technology on behalf of personalized learning (Koçak Usluel & Mazman, 2009, pp. 819-820; Alhassan, 2017, pp. 219-220). Hong (2008) defines blog as “online chronological collection of personal commentary and links” and states that while blogs offer advantages such as creating, connecting, responding and informing readers, their individualized nature allows them to have biased, inaccurate and temporary information which can easily be deleted or changed (p. 34). Wikis are very similar to blogs that have the purpose of unifying learners for creating projects and doing homework. Alhassan (2017) defines wiki as a type of web page allowing users to work on content by editing the existing information or adding new information without being limited to restrictions. He also states that wikis are friendly as they are easy to create and free of charge (p. 2019). Koçak Usluel and Mazman (2009) state that podcasts and social networks are helpful and sustainable Web 2.0 tools for learners who keep learning while doing their daily activities at the same time by keeping them in touch with other learners (p. 820). Lastly, Can, Gelmez-Burakgazi and Celik (2019) mention the benefits of Web 2.0 tools and state that they boost collaborative and active learning, support learner engagement and social and academic involvement which is transformed into academic success and containment (p.89). From a variety of efficient Web 2.0 tools, Kahoot! and Quizlet have forged the focus of this study and they have been examined on the following chapters.

### **2.10.1. Kahoot!**

The effectiveness and place of Web 2.0 tools in language learning were discussed previously. On 21<sup>st</sup> century, many Web 2.0 tools have been developed in order to satisfy the learning needs of learners and offer them alternatives rather than traditional learning methods. One of the most popular of these tools is Kahoot!. Kahoot! is a gamified student response system(GSRS) which engages learners through

pre-made quizzes, discussions or surveys (Dellos, 2015, p.49). What makes Kahoot! a popular Web 2.0 tool is that it is a free online platform that helps teachers present new topic, revise the previous topics and assess learners' existing knowledge (Graham, 2015, p.6). Learners do not need to create a new account to get access to quizzes. What they only need to do is to register [www.kahoot.it](http://www.kahoot.it) and enter the pin that their teacher provides them. Teachers need to create accounts to make up their own quizzes or use the existing ones. In order to create quizzes, discussions or surveys, teachers need to log in to *create.kahoot.it* and click Quiz, Discussion or Survey and create them in minutes. They can also create multiple choice questions by adding music, videos, images and answers (The Kahoot Guide, 2016, pp.36-37). Kahoot! teacher and student screens are shown with figures below.

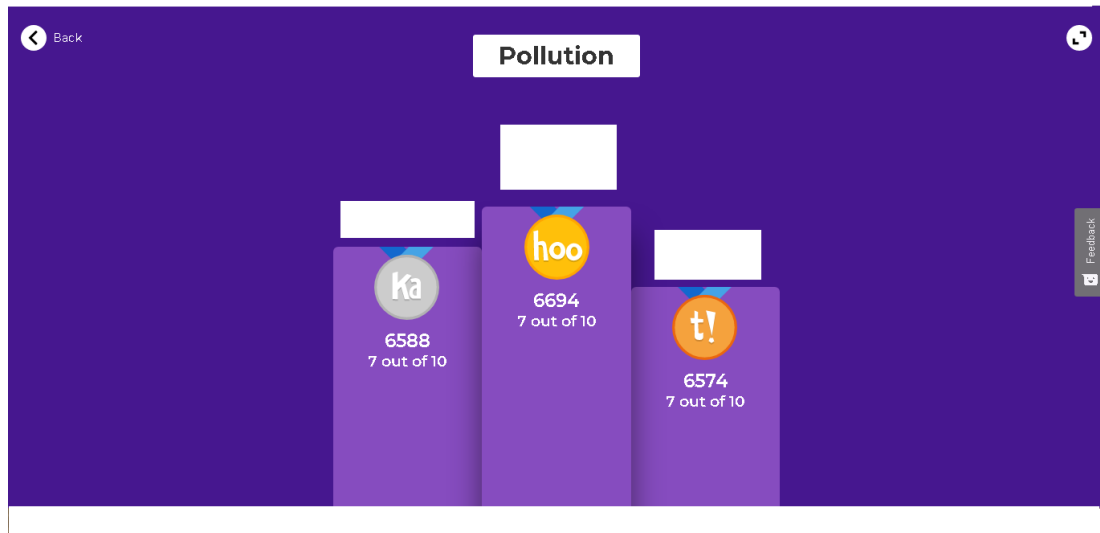


**Figure 5.** Kahoot! teacher screen (Graham,2015, p.7).



**Figure 6.** Kahoot! student screen (Graham,2015, p.7).

Dellos (2015) asserts that teachers can add time limits for each question up to 30 seconds and for each correct answer, students win 1.000 points. During this time, students are supposed to answer the question and teacher goes on with the next question (p.50). As it is seen on the Figures 5 and 6 above, each color represents an answer and after students read the question, they are supposed to choose one of the options which they believe that might be the correct answer. However, choosing the right answer is not the only requirement to become successful in this contest. Students are also supposed to choose the right answer as quickly as possible as they earn extra points for their rapidness. This is an extra motivation for them as they see their scores after each answer on the leaderboard. Through the leaderboard, students can see the top five scorers and they try hard to take place on the podium at the end of the quiz. Top three scorers are placed on the podium and they are awarded with cups for their achievements.



**Figure 7.** An example podium of the Quiz on pollution

Many researchers have conducted studies using Kahoot! and they have concluded that using Kahoot! increases motivation and student engagement, promotes learning, creates a passionate and enjoyable environment, helps teachers to assess their students' levels, enhances student collaboration, constitutes a better understanding and eases learning (Graham, 2015; Dellos, 2015; Ciaramella, 2017; Bicen & Kocakoyun, 2018). Kahoot! can be used for any age group from middle school to university level and achieves integrating students to lessons by having fun. Conducted researches strongly suggest the use of Kahoot! in classrooms for a variety of reasons discussed above and 21<sup>st</sup> century teachers would consider applying Kahoot! to their classrooms. Next chapter will focus on another Web 2.0 tool, Quizlet.

### **2.10.2. Quizlet**

Quizlet is another Web 2.0 tool that has been famous for its effective flashcards for vocabulary learning over years. Quizlet was discovered in 2005 when Andrew Sutherland created a set of vocabulary cards to study for his vocabulary exam. After discovering the success of Quizlet, he suggested this tool to his friends and after a while the success and fame of Quizlet spread worldwide. Quizlet Impact Factor (2019) reveals that Quizlet is used in 130 countries and has over 50 million active users monthly (p.9). Report also reveals that 400 million study sets are created and 14 billion study terms are registered to Quizlet (p.7). Report findings state that from top five study areas that students prefer, foreign languages and English vocabulary are the most used and leading areas (p.4). Dizon (2016) states that students and teachers can easily access to Quizlet from their desktops as well as from Apple iOS and Google Android (pp. 43-44). Sanosi (2018) explains the availability of access to game modes on desktop and mobile app on the table below.

**Table 5.**

*Availability of access to game modes on desktop and mobile app*

Learning mode (on website)	Description	Mobile app. (Android & iOS)
Learn	Students can learn words and their meaning through multiple choice and writing questions. Questions grades from easy to difficult.	Available
Flashcard	Digital flashcards demonstrate terms and can be flipped by mouse clicks or tabs on screens to show definitions or pictures explaining the term.	Available
Write	Students are asked to write the definitions for the terms or the pictures exposed. Extra attempts are required if the learner makes an error.	Available
Spell	Students listen to audio prompts and are asked to type what they hear. If they misspell the word, they will hear it dictated letter by letter while the correct answer is being typed in the screen.	Not available
Test	A test of four types of questions: written, multiple choice, matching, and True or False. The questions are based on the study set whether the terms are explained by picture, definition, or L1 translations. Students can check their scores and the correct answers for the mistaken ones.	Available
Match	A game in which learners are asked to match terms to their definitions (or the corresponding pictures) as quickly as possible. Each time a learner finished, the app shows him his score and rank among other learners.	Available
Gravity	Another game in which the terms appear on asteroids approaching the planet. Learners are asked to type the corresponding definition of the term before the falling asteroid crashes onto the planet.	Not available
Live	This in-class collaborative activity requires 4 or more learners connected to <a href="http://quizlet.com/live">http://quizlet.com/live</a> and they are asked to enter the unique session code. The learners are distributed to groups each of which answers multiple choice questions based on the study sets via their mobile devices. The answers are randomly scattered among the devices, therefore, a collaboration is required to decide the correct answer. The first group to finish the game wins.	Not available

(Sanosi, 2018, p.72).

As it is clearly shown on the table above, Quizlet offers learners a variety of game modes. However, some features such as *Spell*, *Gravity* and *Live* modes cannot be accessed on mobile apps. English vocabulary may be studied through *learn* and *flashcards* modes. *Learn* mode assesses how much learners know about terms and monitors what they miss. After students register their answers, *learn* mode shows them

both the right answer and what they miss. *Flashcards* allow learners to revise the necessary vocabulary. *Write* mode requires students to write the definitions of the terms or images. Through *Spell* mode, pronunciation studies can be conducted and students can write what they hear. Through *test* mode, learners can create tests to assess how much they have learnt and can see their success before a quiz or an exam. *Scatter game (Match* mode) allows learners to match the words with their definitions and also offers competition in classroom as rapidness is also important as well as right answers. *Gravity game* is a popular game mode in that students are required to type the right answer as quick as possible as asteroids keep falling and threaten the planets. Lastly, *Live* mode allows learners to work together in order to find the definitions of the words presented and offers a communicative studying environment (Andarab, 2019, p. 982; Sanosi, 2018, p.72). Students can utilize from these modes according to their needs and they can revise the vocabulary they learn.

Quizlet has become the main focus of many studies. Many researchers (Chien, 2013; Dizon, 2016; Barr, 2016; Gaer, 2017; Sanosi, 2018; Montaner-Villalba, 2019; Andarab, 2019) have conducted studies related to the efficiency of Quizlet. From these studies, researchers have concluded a variety of outputs for future researches. Dizon (2016, p.52) asserts by evaluating opinions of his students that Quizlet is an effective Web 2.0 tool to revise vocabulary both inside and outside classroom. Having bond with technology, Quizlet attracts students' attention and they use it a lot as they are digital natives who always use smartphones. His students also stated that they want to use Quizlet in the future. Barr (2016, p.47) states that Quizlet enhances the engagement of the students with the topic revised. More importantly, study showed that Quizlet offers learners a way to learn independently by using their desktops or smartphones. By doing so, it can be concluded that Quizlet enhances learner autonomy, which simply helps learners to find their own unique and effective study style (Barr, 2016; Gaer, 2017; Sanosi, 2018). By evaluating her study, Gaer (2017) states that even if learners are digital natives, they may not be familiar with the applications used for learning and teaching inside and outside the classroom. She adds that teachers need to clarify how to use these applications in order to ensure a good



learning process (p.159). What can be concluded from this part is that thanks to a variety types of studying styles, Quizlet is a learner-friendly and easy-to-use Web 2.0 tool which is famous especially for its remarkable flashcards. Any teacher who wants to enhance students' vocabulary levels can use this Web 2.0 tool with no doubt after introducing the tool to them.

## **2.11. Related studies on gamified vocabulary learning**

### **2.11.1. Studies held in Turkey**

Many studies have been conducted to show the efficacy of gamification and Web 2.0 tools on vocabulary learning. Açıkgöz (2019) conducted a study for her master thesis in order to assess whether gamified Web 2.0 tools are effective for students' vocabulary performance or not. The study was conducted at an English-medium foundation university preparatory school during 2017-2018 academic year Fall Semester. The study adapted pre and post-tests two experimental groups quasi-experimental design. Participants of this study consisted of 43 students, 20 in Experimental group 1 and 23 in Experimental group 2. Ages of participants were between 18 and 22. The participants were studying their first year at university. The researcher made use of pre and post-tests to acquire quantitative data while the researcher applied semi-structured interviews and Intrinsic Motivation Inventory (IMI) to acquire qualitative data. The researcher adapted convenient sampling technique during the process of constituting her study groups. Before the study, students from both groups were given a pre-test by the researcher to assess students' pre-existing vocabulary knowledge and the treatment started right after. Experimental Group 1 completed vocabulary exercises both through classical teaching methodology and in-class Kahoot! activities prepared by the researcher. However, Experimental Group 2 conducted vocabulary exercises through both classical teaching methodology

and in and out-class Quizgame exercises. Treatment sessions were conducted for 6 weeks. At the end of the sessions, students from both groups were given post-tests to assess if Web 2.0 tools had any positive effect on their vocabulary performance. Additionally, both Intrinsic Motivation Inventory (IMI) and semi-instructed interviews were applied to acquire qualitative data by the researcher. At the end of the study, researcher concluded that use of Web 2.0 tools during the treatment sessions and a gamified learning environment had a positive impact on students' vocabulary performance.

Çınar (2019) conducted a true experimental model study to investigate the effectiveness of Quizlet on students' vocabulary learning and their attitudes towards English lesson. The study adapted pretest- posttest control group quasi-experimental design. The study was conducted through 2018-2019 academic year at Educators Sports High School in Tepebaşı district, Eskişehir with 71 ninth grade students. English Language Attitude Scale, Vocabulary Test (developed by the teacher and included 100 questions from the lesson unit) and Interview Form were data collection tools during the study. Before the study, Vocabulary Test was applied to students to assess their pre-existing knowledge and the treatment started. During the treatment, experimental group received Quizlet-based instructions while control group received traditional instructions for eight lessons in total through four weeks. After the treatment was finished, Vocabulary Test was applied as post-test. The data gathered from English Language Attitude Scale and Vocabulary Test were analyzed by Statistical Package for the Social Sciences (SPSS) and the data gathered through Interview Form were analyzed by descriptive analysis. The study results revealed that Quizlet online vocabulary application had a positive effect on students' vocabulary learning. Interviews also revealed that students felt more interested, self-confident, relaxed and happy. Students also stated that use of Quizlet in English lessons ease vocabulary learning and make vocabulary learning more enjoyable.

Emecen (2019) conducted another study to analyze the efficacy of Kahoot! on vocabulary retention. The research design of the study was pretest-posttest control group quasi-experimental and adapted a quantitative research model. Convenient sampling was used in this study as it makes easy for the researcher to get access to students. The study was conducted at a high school in Ankara/TURKEY with 32 ninth grade students whose English levels were A1. Experimental group had 15 students while control group had 17 students. Students' motivation and aptitude levels were nearly same as they took the same high school entrance exam. The pre-test was developed by the researcher and included 20 target words taken from the last three units of students' books. The pre-test was applied to all 32 students to assess their pre-existing knowledge and after treatment started. After the learners took the pre-test, treatment started. While control group students were instructed via classical pen and paper method, experimental group students were instructed via Kahoot!. The instruction of new vocabulary lasted 2 class hours while exercises were completed in a class hour. After the instruction and practice, an immediate post-test was given to students to assess their short-term retention. Three weeks after the immediate post-test, a delayed post-test was applied to see if there was a difference between groups in terms of retention. After the treatment, a Likert-type survey was conducted to gather students' views about Kahoot!. The survey results showed that students found using Kahoot! easy and enjoyed learning with Kahoot!. They also stated that they would prefer Kahoot! to traditional techniques. They finally stated that Kahoot! increased their motivation and boosted their vocabulary retention. The study results also revealed that there was statistically difference between control and experimental groups in that total vocabulary benefit of experimental group was higher than the control group.

### **2.11.2. Studies held out of Turkey**

Vocabulary learning through gamification and Web 2.0 tools is a universal phenomenon and it has also been applied out of Turkey. Many studies have proved the efficacy of Web 2.0 tools in vocabulary learning. Wichadee and Pattanapichet (2018) conducted a study to investigate the digital game Kahoot's impact on student motivation and learning performance. The study was conducted at a private university in Thailand during the fall term of 2017 academic year. The participants were sampled through cluster sampling and 77 students were chosen among 2,645 students. These 77 students were grouped into two. 38 students were placed in experimental group and 39 students were placed in control group. These students were studying their second year at the division Hotel Management program. Their age-levels ranged from 18 to 24. The study was conducted through 14 weeks and each week students attended 3 lessons. The pre-test was created and applied to students by the researcher. Through the treatment, ten vocabulary quizzes and five grammar quizzes were prepared and applied to students with a difference that while control group completed the quizzes through pen and paper method, experimental group dealt with Kahoot!- based activities. After twelve weeks of treatment, students were given a questionnaire to have a deeper knowledge of their motivation. Another questionnaire was also applied only to experimental group students to gather their ideas about gamification. At the end of the treatment, students were given a post-test to investigate if there was a statistical difference between groups. The data gathered through pre-post tests and questionnaires were analyzed by using SPSS 16. The results revealed that likely because of its competitive nature, Kahoot had a statistical difference on experimental group students' post-test results. It was also concluded that Kahoot! enhanced student engagement and motivation. Also, it was stated that Kahoot! made lessons interesting and fun.

Sanosi (2018) conducted an experimental study to assess the efficiency of Quizlet on vocabulary acquisition of university-level L2 learners whose L1 is Arabic. The study adapted pretest-posttest control group design and two groups of low-level male university students were the participants of this study. The students were studying their first year at the College of Sciences and Humanities at Prince Sattam Bin Abdulaziz University in Saudi Arabia. Each group had 21 students, 42 students in total. The study was conducted at the second term of the students' first year at the university. Pre and post-tests which aimed to assess the vocabulary acquisition of four units of course syllabus were used to gather data. After teaching first four units, the researcher applied pre-test to both groups. In the second phase of the study, while experimental group revised the same units through Quizlet inside and outside classroom, control group kept revising the units through regular teaching method for four weeks. The vocabulary sets for experimental group were prepared by the researcher and students were instructed to sign in the application and do the related exercises. The results were analyzed by using SPSS. At the end of the study, it was concluded that experimental group had a significant vocabulary gain scores when compared to control group.

Montaner-Villalba (2019) conducted a pretest-posttest quasi-experimental study to investigate the efficiency of Quizlet on vocabulary acquisition. The study was conducted with a treatment group which consists of 24 state secondary school A2 level students in Valencia during 2017-2018 academic year. The participants were chosen randomly and their age-levels were between 14 and 15. They were studying their fourth year of compulsory secondary education at a state school in Valencia/SPAIN. After the first three units were taught to students in classical manner, the pre-test was administered to students before starting the treatment by using Quizlet. During the treatment, students were required the practice the same units by using learning sets prepared on Quizlet by the researcher both inside and outside the classroom for three weeks. The same procedure was conducted for the next six units by combining traditional teaching and Quizlet-based practices both inside and outside the classroom. At the end of the study, post-test was administered through *Test* mode in Quizlet. At the end of the study it was concluded by the researcher that post-test scores of the

students were significantly higher than their pre-test scores which means that Quizlet had a significant impact on students' vocabulary acquisition.

## **CHAPTER III**

### **METHODOLOGY**

#### **3.1. Presentation**

This chapter presents information about the design of the study. Aim and significance of the study, research questions, participants and setting, data collection instruments, data collection process and data analysis are presented.

#### **3.2. Aim and Significance of the study**

The aim of this study is to investigate the efficacy of Web 2.0 tools on seventh grade students' vocabulary knowledge. Another aim of this study is to find out which Web 2.0 tool will be more successful in vocabulary teaching than the other. Lastly, this study is intended to acknowledge students' views on vocabulary learning through these Web 2.0 tools. This study carries significance as it attempts to prove the efficacy of Web 2.0 tools in distance education during COVID-19 pandemic. Another significance of the study is that it will open new doors for further researches in the field and it will offer alternatives to teachers in terms of vocabulary teaching.

#### **3.3. Research questions**

For the purpose of accomplishing the aims mentioned above, the following research questions have been directed;

RQ1. Are Web 2.0 tools efficient in vocabulary learning?

RQ2. Is there a significant difference between Kahoot! and Quizlet in terms of vocabulary learning ?

RQ3. What are the learner views on the use of Web 2.0 tools in classroom?

### **3.4. Participants and Setting**

The study was conducted at one of the Private Bahçeşehir Middle Schools in Kırklareli/TURKEY. The study was conducted through five weeks in the beginning of 2020-2021 Academic year. Participants of the study were 32 7<sup>th</sup> grade students. Students nearly had a similar background knowledge as they all passed the same school entrance exam. They were placed to classrooms by the school administration, so the researcher conducted the study with pre-prepared classes and used convenient sampling. During the study, one of the students in Kahoot! group didn't complete the pre-test and another student didn't complete the post-test. Additionally, a student from Quizlet group left the school. As a result, Kahoot! group included 13 (5 male, 8 female) students and Quizlet group included 16 (11 female, 5 male) students. The study was conducted with 29 students.

### **3.5. Data Collection Instruments**

This study adopted mixed-method design implementing both quantitative and qualitative data. In order to gather quantitative data, a vocabulary test including 30 questions was developed by the researcher (See Appendix 1 below). 30 words from the first three units of students' books were chosen and included to vocabulary test questions with distractors. The reliability of pre-test was found to be .78 and .89 for the post-test through Cronbach's Alfa coefficient. Additionally, the validity of the test



was ensured by three teachers serving at schools of Ministry of National Education and a senior university lecturer. Vocabulary test was used as a pre-test at the beginning of the study in order to assess students' pre-existing knowledge and at the end of the study in order to assess the efficacy of Web 2.0 tools on students' vocabulary knowledge. Vocabulary test was prepared via Google Forms. Twenty nine students were asked to answer the questions during one online lesson hour (30 minutes) on Zoom by the researcher and his colleague who was teaching the seventh graders at the time of the study. Vocabulary chosen to be taught are listed below.

**Table 6.**

*Vocabulary chosen from the students' books*

<b>Nouns</b>	<b>Verbs</b>	<b>Adverbs</b>	<b>Adjectives</b>
collection	belong	permanently	artificial
resource	whistle	recently	contagious
migration	bombard		restrictive
theft	capture		confused
threat	interfere		moderate
millennium	improve		faint
opportunity	activate		irritating
particles	relate		
abbreviation			
installation			
intensity			
refugee			
ecosystem			

## Appendix 1

### Pre-test and Post-test Questions

Değerli öğrenciler,

Aşağıda 30 çoktan seçmeli sorudan oluşan bir kelime testi yer almaktadır. Bu kelime testi kelime bilginizi ölçme amacıyla uygulanacaktır. Soru cümlelerindeki boşluklara uygun gelecek 4 şıktan birini işaretlemeniz gerekmektedir. Ayırdığınız zaman için teşekkür eder, başarılar dilerim.

Utku KURTOĞLU

İngilizce Öğretmeni

1- How have you chosen all these t-shirts ? It is a nice .....

- a) migration                      b) condition                      c) election                      d) collection

2- George: Whose car is it ?

Jelena: It is not mine. It ..... to Joe.

- a) forces                      b) names                      c) belongs                      d) appreciates

3- Hey, is it gold ? Gold is a natural .....

- a) resource                      b) integration                      c) belonging                      d) election

4- Magnus: I can't believe that I have been banned from my favorite video game!

Miriam: Oh, what a pity! For how long ?

Magnus: ....., I'm afraid.

- a) Periodically                      b) permanently                      c) recently                      d) widely

5- What is called when somebody moves from one place to another and turns back again ?

- a) Migration                      b) collection                      c) integration                      d) condition

6- I left my car in front of my house yesterday and I can't find it now. It is a/an .....

- a) condition                      b) existence                      c) theft                      d) immigration

7- Jonas: Hey, is this our bus leaving the bus station ?

Hans: Oh yes. .... to stop it !

- a) Appreciate                      b) force                      c) herding                      d) whistle

8- Oh, please. Stop making this sound. It is very .....

- a) irritating                      b) nomadic                      c) rural                      d) sedentary

9- Where have you been ? I haven't seen you .....

- a) periodically                      b) recently                      c) permanently                      d) widely

10- Many animals have been facing famine. It is a big ..... for their lives.

- a) shepherd                      b) phrase                      c) threat                      d) resource

11- My company will send me to Canada for a seminar. It is an excellent ..... to practice my English.

- a) identity                      b) necessity                      c) predator                      d) opportunity

12- You don't need to ..... me with questions. Let me explain the topic first.

- a) bombard                      b) capture                      c) settle                      d) endanger

13- How is the term called if we are talking about a thousand years ?

- a) troop                      b) hyphen                      c) generation                      d) millennium

14- This exam has ..... rules. You can't even use your friend's rubber. You need to bring your own rubber.

- a) familiar                      b) nomadic                      c) confused                      d) restrictive

15- It is hard to ..... a country unlike it was once.

- a) settle                      b) capture                      c) endanger                      d) bark

16- Please don't ..... in this. It doesn't matter you.

- a) interfere                      b) represent                      c) activate                      d) improve

17- Each animal feels itself comfortable in its unique .....

- a) necessity                      b) troops                      c) ecosystem                      d) opportunity

18- The number of ..... who are forced to leave their countries have been increasing day by day.

- a) plains                      b) migrants                      c) identities                      d) refugees

19- I have difficulty in finding the right answer. I'm very..... right now.

- a) familiar                      b) confused                      c) overland                      d) nomadic

20- If you want to get a better job, you should ..... your skills.

- a) capture                      b) interfere                      c) improve                      d) endanger

21- It is not a natural fountain. It is .....

- a) artificial                      b) imagery                      c) navigation                      d) vibration

22- Be careful with the illnesses. Some of them are highly .....

- a) rustling                      b) voiced                      c) unvoiced                      d) contagious

23- Your account is not ready to use, sir. You need to ..... it first.

- a) represent                      b) activate                      c) belong                      d) interfere

24- App is the ..... of the word 'application'.

- a) installation                      b) function                      c) abbreviation                      d) navigation

25- I'm really excited to play this computer game but I have to wait for its ..... for 20 minutes.

- a) soundscape                      b) browser                      c) vibration                      d) installation

26- It is believed that the World was composed of tiny .....

- a) particles                      b) circumstances                      c) sirens                      d) airflows

27- I can't hear properly. The ..... of music was too much.

- a) insight                      b) intensity                      c) vacuum                      d) probability

28- I have never experienced this kind of situation. I can't ..... it with my previous knowledge.

- a) bark                      b) belong                      c) relate                      d) force

29- I have ..... grades at school. I'm neither too lazy nor too successful.

- a) leading                      b) artificial                      c) faint                      d) moderate

30- I don't like this color. It is too ..... I mostly like bright colors.

- a) faint                      b) contagious                      c) nomadic                      d) confused

In addition to vocabulary test, semi-structured interview forms (See Appendices 2 and 3 below) for both groups were developed by the researcher in order to gather students' views on Web 2.0 tools. Semi-structured interview forms included 9 open-ended questions and through these forms, students found a chance to indicate their views. Open-ended questions were modified for two different Web 2.0 tools (Kahoot! and Quizlet). The validity of the semi-structured interview forms was ensured by three teachers serving at schools of Ministry of National Education and a senior university lecturer. Semi-structured interview forms were prepared via Google Forms. Both Kahoot! group (12 students) and Quizlet group (16 students) were asked to give answers to questions on Zoom meeting for one online lesson hour (30 minutes) by the researcher and his colleague. One student from Kahoot! group was not willing to answer the questions of semi-structured interview forms. So s/he didn't attend the session. Average time students spent for answering the questions varied between 15 to 25 minutes.

## Appendix 2

### Semi-Structured Interview Form for Kahoot! group

Sevgili öğrenciler,

4 hafta boyunca işlediğimiz ünitelerdeki kelimeleri ‘‘Kahoot!’’ kullanarak tekrar ettik. Bu görüşme formu sizin Kahoot! ile ilgili görüşlerinizi almak amacıyla oluşturulmuştur. Vereceğiniz cevaplar kelime öğretiminde Kahoot! ve Quizlet uygulamalarının karşılaştırılmasını konu alan yüksek lisans tezimde kullanılacaktır. Ayırdığınız vakit için teşekkür ederim.

Utku KURTOĞLU

İngilizce Öğretmeni

1- Kahoot! uygulamasının kelime öğreniminde etkili olduğunu düşünüyor musunuz ?  
Neden ?

2- Kahoot! uygulamasının kelime öğreniminde size hangi yönleriyle yardımcı olduğunu düşünüyorsunuz? Sebepleriyle açıklayınız.

3- Kahoot! uygulamasının kelime öğreniminde size hangi yönleriyle yardımcı olmadığını düşünüyorsunuz? Sebepleriyle açıklayınız.

4- Sizce Kahoot! eğlenceli bir uygulama mı ? Öyleyse, hangi yönleriyle eğlenceli ?

5- Sizce Kahoot! uygulamasının kullanımı kolay mı ? Öyleyse, hangi özellikleriyle ?

6- Yazılı kelime listeleriyle kıyaslarsanız Kahoot!'u tercih eder misiniz ? Neden ?

7- Kahoot! uygulamasını kelimeleri tekrar etmek amacıyla sınıf dışında da kullanır mısınız ?

8- Kahoot! uygulamasını kullanmayı arkadaşlarınıza da tavsiye eder misiniz ?

9- Kahoot!'un sıralama yöntemi sizi oynarken ne yönde etkiledi? Pozitif mi yoksa negatif mi ? Sebepleriyle belirtiniz.

### Appendix 3

#### Semi-Structured Interview Form for Quizlet group

Sevgili öğrenciler,

4 hafta boyunca işlediğimiz ünitelerdeki kelimeleri ‘Quizlet’ kullanarak tekrar ettik. Bu görüşme formu sizin Quizlet ile ilgili görüşlerinizi almak amacıyla oluşturulmuştur. Vereceğiniz cevaplar kelime öğretiminde Kahoot! ve Quizlet uygulamalarının karşılaştırılmasını konu alan yüksek lisans tezimde kullanılacaktır. Ayırdığınız vakit için teşekkür ederim.

Utku KURTOĞLU

İngilizce Öğretmeni

1- Sizce Quizlet kelime öğrenimi için etkili bir uygulama mı ? Neden ?

2- Quizlet uygulamasının kelime öğreniminde size hangi yönleriyle yardımcı olduğunu düşünüyorsunuz? Sebepleriyle açıklayınız.

3- Quizlet uygulamasının kelime öğreniminde size hangi yönleriyle yardımcı olmadığını düşünüyorsunuz? Sebepleriyle açıklayınız.

4- Sizce Quizlet eğlenceli bir uygulama mı ? Öyleyse, hangi yönleriyle eğlenceli ?

5- Sizce Quizlet uygulamasının kullanımı kolay mı ? Öyleyse, hangi özellikleriyle ?

6- Yazılı kelime listeleriyle kıyaslarsanız Quizlet'i tercih eder misiniz ? Neden ?



7- Quizlet uygulamasını kelimeleri tekrar etmek amacıyla sınıf dışında da kullanır mısınız ?

8- Quizlet uygulamasını kullanmayı arkadaşlarınıza da tavsiye eder misiniz ?

9- Hangi oyun modu/ modlarını sevdiniz ? Neden ?

### 3.6. Data Collection Process

The study was conducted at one of the Private Bahçeşehir Middle Schools in Kırklareli/TURKEY in the beginning of 2020-2021 academic year and it lasted for 5 weeks. During the first week of the study, students were introduced two Web 2.0 tools, Kahoot! and Quizlet and they learned how to use them during one lesson. Subsequently, the vocabulary test was implemented to both groups as pre-test during one lesson hour same week. Cronbach's Alfa values showed that the scores for pre-test were reliable by being .78. Following four weeks, while one group practiced contextual (unit-related) vocabulary through Kahoot! activities, the other group dealt with activities through Quizlet for one lesson hour each week. Vocabulary activities of Kahoot! group included synonyms and definitions of the words. Moreover, fill in the blanks activities were utilized. All the words were related to course book units of the students. Additionally, those activities addressed the reading (receptive) skills of the students. Similarly, vocabulary activities of Quizlet group included definitions and synonyms of the words. Those activities addressed the listening and reading (receptive) skills and writing (productive) skills of the students. During each week of intervention period, students became familiar with target words four times. While Kahoot! group played the Kahoot! of the related week twice, Quizlet group practiced vocabulary through *flashcards*, *learn*, *listen-write*, *matching*, *test* and *gravity* modes. Four game modes were utilized each week for Quizlet group. At the last week of the study, pre-test was implemented to students as post-test to assess the quality of change in their vocabulary knowledge. After the post-test was implemented, Cronbach's Alpha scores were found to be .89 and ensured the reliability of the test. Timetable of the study is presented below.

**Table 7.***Timetable of the study*

<b>Tests, Forms and Activities that are Conducted through the Study</b>	<b>Date and Lesson Hours of the Study</b>
Two Web 2.0 tools ( Kahoot! and Quizlet) were presented and pre-test was implemented to both groups.	September 1- September 4, 2020  One lesson hour: Presentation of Web 2.0 tools One lesson hour: Implementation of pre-test
Vocabulary activities were practised through Web 2.0 tools.	September 7- October 2 , 2020  One lesson hour each week during 4 weeks
Post- test was implemented to both groups and semi-structured interview forms were applied to both groups.	September 28- October 2 , 2020  One lesson hour: Implementation of post-test One lesson hour: Application of semi-structured interview forms

### 3.7. Data Analysis

For data analysis, parametric assumptions were tested initially. First of all, data distribution was tested by means of Shapiro-Wilk Tests, which is one of the most powerful tests of normality for smaller samples (e.g.  $n < 50$ ) (Larson-Hall, 2016; Ricci, 2005) The sample of this study consisted of 29 participants; therefore, it was considered suitable for normality tests. Since the post-test comparison of the Kahoot! and Quizlet groups necessitated an ANCOVA model, the residuals were tested for normality as suggested by Field (2018). The results are presented below.

**Table 8.***Shapiro- Wilk Test results*

Variable	<i>SW</i>	<i>df</i>	<i>p</i>
Pre-test	.968	29	.514
Post-test	.934	29	.069
Residuals	.962	29	.365

As seen in the table, the pre-test and post-test data as well as the standardized residuals for the ANCOVA model were all normally distributed ( $p > .05$ ).

Regarding the other assumptions of ANCOVA, it was seen that the variances ( $F_{(1, 27)} = 0.035, p > .05$ ) and the regression slopes ( $F_{(1, 25)} = 0.223, p > .05$ ) were homogenous. The relationship between the dependent variable and the covariate was also seen to be linear at all levels of the independent variable. Lastly, there was no significant difference between the pre-test scores of the Kahoot and Quizlet groups ( $t = 1.04, df = 27, p > .05$ ).

Taking the assumption tests into account, the pre-test and post-test results for the whole sample were compared by means of a paired samples t-test. An ANCOVA was utilized for the post-test comparisons of the Kahoot! and Quizlet groups controlling for the potential pre-test effects.

Through the light of aim and significance of the study, research questions, participants and setting, data collection instruments, data collection process and data analysis, this part presents the background of the study and helps to interpret the results of the study better.

## CHAPTER IV

### FINDINGS

#### 4.1. Introduction

This part highlights both quantitative and qualitative data gathered from students. Findings are presented with reference to the research questions.

#### 4.2. Findings of Quantitative Data

The pre-test and post-test results for the whole study sample are presented below.

**Table 9.**

*Pre-test and Post-test Results and their Comparison (N = 29)*

Test	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>t</i>	<i>Df</i>	<i>p</i>	<i>d</i>
Pre-test	14.28	5.19	5	28	2.838	28	<b>.008</b>	0.50
Post-test	17.38	7.03	5	28				

As presented in the table above, the mean score for the whole sample increased by 3.10 points from the pre-test ( $M = 14.28$ ,  $SD = 5.19$ ) to the post-test ( $M = 17.38$ ,  $SD = 7.03$ ). The minimum score was 5 and the maximum score was 28 in both tests.

The paired samples t-test result showed that the increase was statistically significant with a medium effect ( $t = 2.84$ ,  $df = 28$ ,  $p < .01$ ,  $d = 0.50$ ).

The pre-test and post-test results for the Kahoot! and Quizlet groups are tabulated below.

**Table 10.**

*Pre-test and Post-test results according to groups*

Group	<i>n</i>	Test	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Kahoot!	13	Pre-test	15.38	5.71	7	28
		Post-test	19.00	7.07	5	28
Quizlet	16	Pre-test	13.38	4.72	5	23
		Post-test	16.06	6.94	6	27

As seen in the table above, the Kahoot! group had a mean pre-test score of 15.38 ( $SD = 5.71$ ) with a minimum of 7 and maximum of 28 points. In the post-test, the mean score for this group increased by 3.62 and reached 19.00 ( $SD = 7.07$ ) with a minimum of 5 and maximum of 28.

The Quizlet group had a mean pre-test score of 13.38 ( $SD = 4.72$ ) with a minimum of 5 and a maximum of 23. In the post-test, the mean score for this group increased by 2.68 and became 16.06 ( $SD = 6.94$ ) with a minimum of 6 and a maximum of 27.

As a result, an increase was observed in both groups regarding mean test scores.

The results of the ANCOVA that was run to see if there was a difference in the post-test scores of the groups are presented below.

**Table 11.***ANCOVA Results*

Source	Type III SS	df	MS	F	p	$\eta_p^2$
Corrected Model	466.618	2	233.309	6.606	<b>.005</b>	0.34
Intercept	143.843	1	143.843	4.073	.054	0.14
Pretest	404.728	1	404.728	11.460	<b>.002</b>	0.31
Group	14.218	1	14.218	0.403	.531	0.02
Error	918.21	26	35.316			
Total	10144	29				
Corrected Total	1384.828	28				
R <sup>2</sup> = .34, Adjusted R <sup>2</sup> = .29						

As shown in the results, the effect of the pre-test on post-test results was statistically significant with a large effect ( $F_{(1, 26)} = 11.46, p < .01, \eta_p^2 = 0.31$ ). On the other hand, the post-test scores of the Kahoot! and Quizlet groups were not significantly different after controlling for their mean pre-test scores ( $F_{(1, 26)} = 0.40, p > .05, \eta_p^2 = 0.02$ ).

Through the light of quantitative data presented above and with reference to RQ1, it is an undeniable fact that Web 2.0 tools are effective in vocabulary learning. Descriptive statistics clearly highlight the change of vocabulary knowledge occurred during the intervention period. In Kahoot! group, this level of change was 3.62 points and it was 2.68 points in Quizlet group.

With reference to RQ2, by examining the descriptive statistics, it can be concluded that Kahoot! is more effective in vocabulary learning than Quizlet. However, when ANCOVA results are analysed, it is seen that this efficacy is not only thanks to gamified applications. The effect of pre-test on post-test had a large effect on the increase in descriptive statistics. As a result, RQ2 was not able to be concluded as the researcher formerly hypothesized.

### **4.3. Findings of Qualitative Data**

In order to examine the phenomenon in a more detailed way, the researcher also employed qualitative data. In this study, qualitative data were gathered in order to acknowledge students' opinions about two Web 2.0 tools, Kahoot! and Quizlet. Qualitative data were gathered through semi-structured interview forms. Two forms were developed by the researcher both for Kahoot! and Quizlet groups via Google Forms. Each form included 9 questions. 12 students from Kahoot! group and 16 students from Quizlet group answered the semi-structured interview forms. One student from Kahoot! group was not willing to answer the questions of semi-structured interview forms. So s/he didn't attend the session. The validity of semi-structured interview forms was ensured by three teachers serving at schools of Ministry of National Education and a senior university lecturer. In order to interpret results and give students a chance to express themselves better, they were asked to answer questions in their native language, which is Turkish, and their expressions were translated by the researcher and his colleague. Students were given one lesson hour time (30 minutes) to give answers to questions. The average time students spent on answering the questions varied between 15-25 minutes. After the students' answers were gathered, they were transcribed and evaluated under themes and categories by the researcher and his colleague who was teaching the seventh graders at the time of the study.. The results were interpret under two distinct groups (Kahoot! and Quizlet). The table showing the themes and codes of the interviews is presented below.



**Table 12.***Themes and codes of the interviews*

	Kahoot! group	Quizlet group
Themes	Efficacy Convenience of use Experience	Efficacy Convenience of use Experience
Codes	Ranking system Inside the classroom Outside the classroom Preference Suggestion Favourable features Unfavourable features Pleasure	Efficacy Inside the classroom Outside the classroom Preference Suggestion Game modes Favourable features Unfavourable features Pleasure

### **4.3.1. Findings of Qualitative Data for Kahoot! group**

#### **4.3.1.1. Efficacy**

All the students found Kahoot! as an effective application. 5 out of the 12 students indicated that Kahoot! was both enjoyable and informative. 4 out of 12 students also indicated that thanks to Kahoot!, they could revise vocabulary and it helped them improve their vocabulary knowledge. A student stated that through Kahoot! s/he felt less worried while writing sentences. Another student indicated that in order not to make a mistake while doing vocabulary exercises, s/he tried to learn the meanings of the words. Lastly, a student signified that because Kahoot! has a competition in its nature, s/he felt more interested with his/her friends. Students' opinions are presented below.

S1: *‘I think Kahoot! is an effective application for vocabulary learning because it is both funny and quizzes include memorable examples.’*

S4: *‘It is effective because we revise vocabulary over time and it improves our vocabulary knowledge.’*

S8: *‘It is effective as we learn new vocabulary through playing and I don’t feel bored.’*

#### **4.3.1.1.1. Ranking system**

Half (6) of the students had positive attitude towards ranking system of Kahoot!. 2 students stated that they could track their progress at the end of the game. 2 students also stated that they found it enjoyable. One student stated that s/he was motivated when s/he saw herself/himself in top 3 students in the list. Another student stated that s/he felt good when in competition with his/her friends. On the other hand, 3 students had negative attitude towards ranking system of Kahoot!. One of them stated that s/he felt upset when s/he could not win. Another student also stated that when compared to computer users, mobile users were more advantaged as they saw question and options at the same time. Last student also stated that s/he felt demotivated when s/he could not see himself/herself on the list. Last two students didn’t make any comment.

S6: *‘It affected me positively when I saw myself in the podium.’*

S7: *‘It affected me negatively because I felt disappointed when I could not see my name in the podium.’*

S8: *‘It affected me positively because I got ambitious when I was in a competition with my friends.’*

#### **4.3.1.2. Convenience of use**

##### **4.3.1.2.1. Inside the classroom**

When the students' answers are examined, it is clearly seen by the answers of 5 out of 12 students that they found it easy to use Kahoot! as they didn't need to open an account to use it. 3 out of 12 students stated that they found Kahoot! easy to use as it was easier to use it especially for mobile users in terms of accessing to questions. One of the students specified that it was easy to use Kahoot! as it had a quality internet infrastructure and all the quizzes could easily be accessed by opening an account. However, 2 out of 12 students indicated that it was difficult for them to use Kahoot! as they had difficulty in making a connection between colored options and answers. Similarly, a student stated that it was not easy to use Kahoot! as it had complicated elements.

*S3: "It is easy to use Kahoot! but it would be good to see the question on the smartphone screen."*

*S10: "We can easily connect to session when we register the pin."*

*S11: "Kahoot! is an easy application to use in classroom because it is very easy to answer questions."*

##### **4.3.1.2.2. Outside the classroom**

While more than half (7) of the students stated that they preferred using Kahoot! for vocabulary learning outside the classroom, 5 of the students stated that they would not use Kahoot! for that purpose. When students' answers are examined, 6 students who preferred using Kahoot! stated that they would use it as it was a good and enjoyable application while the last student stated that s/he would sometimes use

it. From the 5 students who stated that they did not prefer Kahoot! for vocabulary learning, 4 of them stated that they would not use Kahoot! unless there was a classroom environment and last student stated that s/he would not use it as s/he did not have friends to use it outside the classroom.

*S3: "I do not use Kahoot! when there is not a classroom environment."*

*S6: "I use Kahoot! outside the classroom as it is both enjoyable and nice."*

### **4.3.1.3. Experience**

#### **4.3.1.3.1. Preference**

Most (9) of the students preferred learning vocabulary through Kahoot! to written word lists. 4 out of 12 students stated that they preferred Kahoot! because they could learn while they had fun. From the remaining five students who preferred Kahoot!; one preferred it as it was informative, the other preferred it as it was easier to keep vocabulary in mind, another student preferred it as it was both motivating and it had colorful options, one another preferred it as it presented vocabulary in the form of examples rather than Turkish meanings and another student preferred it as it was attractive with its competitive nature. Two of the students stated that they did not prefer Kahoot!; one stated that it was demotivating for him/her and the other stated that s/he had little time for vocabulary learning and the quizzes might not include the vocabulary s/he needed to learn. However, Kahoot! includes a number of quizzes including a variety of fields. Also, if students want to practice particular vocabulary, they can create an account and form their ideal quizzes. Lastly, a student stated that s/he liked both Kahoot! and written word lists but she would prefer the latter.

*S9: "Kahoot! is preferable to word lists as it has a motivating music and colorful options."*

*S10: ‘‘When I practice vocabulary through Kahoot!, they become more memorable.’’*

*S11: ‘‘Kahoot! is more instructive than written word lists.’’*

*S12: ‘‘I think learning with fun is more effective.’’*

#### **4.3.1.3.2. Suggestion**

Nearly all of the students (11 out of 12) would suggest using Kahoot! to their friends. They also stated that they could do quizzes with their friends together, have fun and learn at the same time. Only one student stated that s/he would not suggest Kahoot to his/her friends as s/he had difficulty while answering questions due to internet-related problems.

*S7: ‘‘I suggest using Kahoot! to my friends. By using Kahoot!, they can improve their vocabulary.’’*

*S10: ‘‘I suggest using Kahoot! to my friends because we are both learning and having fun.’’*

#### **4.3.1.3.3. Favourable features**

Students found Kahoot! helpful in order to learn vocabulary for many reasons. 3 out of 12 students stated that Kahoot! was helpful as it offered a number of practices. 2 out of 12 students signified that Kahoot! was useful as it helped students remember the words they forget. 2 out of 12 students also mentioned that Kahoot! helped students improve their vocabulary retention as it teaches vocabulary through games. One of the students indicated that Kahoot! corrected misunderstood meanings of the words. Another student stated that Kahoot! helped him/her in terms of pronunciation and

sentence construction while practising with his/her friends and makes him/her know more vocabulary. Also, another student mentioned the easiness of vocabulary learning through Kahoot! as it presented vocabulary through questions instead of Turkish equivalents. One of the students indicated that competitive and time-limited questions took his/her interest and helped him to learn vocabulary. Lastly, a student stated that he learned vocabulary by having fun through Kahoot!.

*S2: ‘‘Kahoot! made it easier to store vocabulary easily in my mind.’’*

*S3: ‘‘Kahoot! is helpful because there is time limit, competition and fun.’’*

*S5: ‘‘Kahoot! is helpful for my vocabulary learning because instead of giving Turkish meanings of the words, Kahoot! asks questions related to the use of those words in sentences.’’*

*S9: ‘‘It makes me happy when I learn new vocabulary through Kahoot! and use those words in sentences.’’*

#### **4.3.1.3.4. Unfavourable features**

While 4 out of 12 students did not make any comment, 3 out of 12 students stated that they could not focus on questions while racing with time. Also, 3 out of 12 students indicated that there was no way that Kahoot! did not help them. One of the students stated that playing Kahoot! on computer was disadvantaged as smartphone users could see and answer questions faster. As the last answer, a student stated that images might be deceiving.

*S2: ‘‘I cannot focus on words while I compete with time.’’*

*S6: ‘‘Time limit can make me feel anxious.’’*

#### 4.3.1.3.5. Pleasure

When the students' answers are examined, it can be seen that there are a variety of answers and most of these answers indicated that Kahoot! was an enjoyable application for students. 4 out of 12 students stated that Kahoot! was enjoyable as they felt that they were in competition while answering the questions. 2 out of 12 students indicated that it was amusing to answer the questions on Kahoot!. One of the students stated that Kahoot! was enjoyable with a feeling of competition it provided and its musics. Another student indicated that Kahoot! was enjoyable as it offered colorful options. Another student stated that s/he found Kahoot! entertaining for its gamified nature. One of the students indicated that Kahoot! was enjoyable for its ranking system and competitive nature. From the last 2 students, one of them stated that Kahoot! was partly enjoyable and the other stated that Kahoot! was not enjoyable as it was demotivating for him/her.

*S2: "It feels nice to in race with my friends."*

*S3: "It is enjoyable with its competitive and enjoyable nature."*

Through the light of both quantitative and qualitative data gathered from Kahoot! group, it can be concluded without any doubt that students really liked using Kahoot! and found it very helpful for vocabulary learning. Through Kahoot!, they found a chance to experience technology-integrated vocabulary learning and its effect can easily be seen on their test scores. From their experiences, it becomes clear that they found Kahoot! fun, informative and competitive.

### 4.3.2. Findings of Qualitative Data for Quizlet group

#### 4.3.2.1. Efficacy

11 out of 16 students stated that Quizlet was effective for vocabulary learning. 3 out of 16 students stated that they found Quizlet effective as they could learn new words and their meanings. Similarly, 3 out of 16 students signified that they could revise vocabulary through Quizlet. From the last 5 students, one stated that Quizlet included a variety of vocabulary and it was challenging. The other stated that it presented vocabulary through pictures. Another student indicated that Quizlet did not include competition and it was easier to learn vocabulary through it. One other student pointed out that Quizlet both improved his/her vocabulary and it was appropriate for distance education. Last student reported that it was faster to learn vocabulary with Quizlet. 3 students stated that Quizlet was not effective for vocabulary learning. 2 of those students pointed out that vocabulary could be served in a different way and another student reported that s/he had difficulty while revising the vocabulary. Once and for all, 2 students did not make any comment.

*S15: "Quizlet is an effective application because we learn new words and their meanings through it."*

*S17: "It is a good application because it does not include competitiveness and it is easier to learn new words through Quizlet rather than word lists."*

*S18: "It improves my vocabulary knowledge and it is applicable to distance education."*



#### **4.3.2.2. Convenience of use**

##### **4.3.2.2.1. Inside the classroom**

11 out of 16 students found Quizlet easy to use by giving various details. 5 of those students found Quizlet easy to use due to its quick interface. Additionally, 4 of the students found all features of Quizlet easy to use. From the last two students, one stated that s/he did not even need to use a keyboard while the other stated that Quizlet had a simple and understandable language. On the other hand, 3 students found Quizlet a little bit difficult to use and 2 students did not make any comment.

*S17: "I don't have difficulty in using Quizlet. It has a simple interface."*

*S21: "I can easily log in and start learning."*

##### **4.3.2.2.2. Outside the classroom**

More than half of the students (10 out of 16) indicated that they would use Quizlet out of classroom in order to revise vocabulary. One of those students also indicated that s/he could use Quizlet in order to revise vocabulary and study for exams. From the rest of the students, one indicated that s/he could maybe use Quizlet. While 4 students stressed that they would not use Quizlet, the last student did not make any comment.

*S15: "It works well while studying for the exams and revising vocabulary."*

*S18: "I use Quizlet as an external source to assist my teacher's training."*

### 4.3.2.3. Experience

#### 4.3.2.3.1. Preference

More than half of the students (10 out of 16) stated that they would prefer Quizlet to written word lists and give reasons for their thoughts. 5 of the students stated that they would prefer Quizlet as it was a good application. Another student stated that s/he could lose written word lists but vocabulary could be found any time digitally on Quizlet. The other student indicated that Quizlet included more detailed information about vocabulary as it served vocabulary through different games. One another student preferred Quizlet as it included pictures describing words and more enjoyable. From the last 2 students, the former indicated that Quizlet both amused and taught words and the latter stated that it was easy to use Quizlet. However, many students stated that they did not prefer Quizlet to written word lists. 5 of those students indicated that it was easier to learn vocabulary through written word lists and the last student stated that written word lists were more memorable.

*S14: "I prefer written word lists because I can see them any time in my room."*

*S15: "I prefer Quizlet because it is both teaching new words and enjoying me."*

*S16: "I prefer written word lists because they are more memorable."*

*S17: "Quizlet's images are more memorable in terms of vocabulary learning and the application is enjoyable."*

#### 4.3.2.3.2. Suggestion

The results showed that despite a few students' negative attitudes towards it, Quizlet was suggested by 15 out of 16 students to their friends. Additionally, one of the students would suggest it due to its easy use. Another student would suggest it to his/her friends if they liked learning while playing and only one student stated that s/he would not suggest Quizlet to his/her friends. What can be concluded from these results is that Quizlet was preferred a lot by the students. Students' opinions are presented below.

*S18: 'I suggest using Quizlet to my friend. I believe that she can improve her English vocabulary through Quizlet.'*

*S20: 'I think Quizlet is more detailed with its many game modes. For this reason, I suggest it to my friends.'*

#### 4.3.2.3.3. Game modes

According to students' answers, 4 of the students liked all of the six game modes as they were fun. *Matching* mode was liked by 3 students and they found *matching* mode amusing. *Flashcard* mode were liked by 2 students and they stated that *flashcard* mode was enjoyable. While one of the students preferred *test*, *matching* and *gravity* modes, the other preferred *listen* and *write* modes. Similarly, while one of the students preferred *flashcard* and *learn* modes, the other preferred *test* mode as it was fun according to him/her. Lastly, 3 students did not make any comment about their favorite game modes.

*S13: 'I liked matching mode because it was fun.'*

*S19: 'I liked flashcards mode because it was enjoyable.'*

#### 4.3.2.3.4. Favourable features

All of the students (16) found Quizlet helpful in vocabulary learning. Most of the students (5) stated that Quizlet helped them to learn vocabulary that they did not know before. 2 of the students, on the other hand, stated that Quizlet was helpful especially for vocabulary pronunciation practice. Additionally, 2 students indicated that Quizlet helped them as it included repetition of vocabulary. From the last 7 students, one of them stated that Quizlet was memorable and s/he understood better through it. Another student stated that Quizlet was helpful for his/her visual memory with its pictures. The other student stated that Quizlet was motivating and enjoyable. One another student stated that Quizlet helped him/her learn vocabulary better. Another student stated that Quizlet was memorable and its images helped learning a lot. From the last 2 students, the former stated that Quizlet was helpful for vocabulary construction and the latter stated that Quizlet helped learning and revising the vocabulary.

*S13: "Quizlet helped me to learn new words and revise them."*

*S14: "Quizlet helped me to make sentences easier."*

*S17: "It is helpful as its effective images are more memorable and better than memorizing words from word lists."*

#### 4.3.2.3.5. Unfavourable features

12 out of 16 students stated that Quizlet did not have a way that did not help them during the intervention period. However, 4 students signified that Quizlet did not help them to learn vocabulary. 3 of those students stated that they found it difficult to learn vocabulary through Quizlet. The last student also stated that it would be difficult to keep longer words in mind through Quizlet.

*S17: ‘‘For longer words, it was difficult for me to keep them in my mind.’’*

*S23: ‘‘It was difficult for me to learn vocabulary through Quizlet.’’*

#### **4.3.2.3.6. Pleasure**

12 out of 16 students indicated that Quizlet was an enjoyable application by giving a variety of reasons. 3 of those students stated that they could learn faster with Quizlet’s enjoyable game modes. Similarly, another student stated that Quizlet’s game modes and effective pictures made it an enjoyable application. The other student signified that Quizlet was enjoyable as students could learn vocabulary by playing games. One of the students indicated that s/he found Quizlet enjoyable because of its matching mode. Other than game modes, a student stated that s/he found Quizlet enjoyable because of its nice and motivating music. Another student stated that Quizlet was enjoyable as it included funny pictures in some of its questions and s/he liked seeing them. 2 of the students found Quizlet enjoyable as it offered enjoyable learning time for them. Lastly, a student found Quizlet enjoyable as it was good for him/her to learn vocabulary fully online. Except for the students mentioned above, 4 of the students stated that they did not find Quizlet enjoyable.

*S14: ‘‘It is enjoyable because I’m learning and having fun.’’*

*S17: ‘‘It is enjoyable with its images and different game modes.’’*

*S22: ‘‘I find Quizlet enjoyable. Its background music is motivating.’’*

*S23: ‘‘I think Quizlet is not enjoyable because I had difficulty while trying to learn new words.’’*

Through the light of both quantitative and qualitative data gathered from Quizlet group, it can be finalized without hesitation that students really liked using Quizlet and its different game modes. They also found it very effective, enjoyable and interesting for vocabulary learning. Quizlet offers them an opportunity to experience technology-integrated vocabulary learning and its positive effect can easily be seen both on their test scores and their answers to semi-structured interview forms. From their experiences, it becomes clear that they found Quizlet informative, interesting and enjoyable.

## **CHAPTER V**

### **DISCUSSION AND CONCLUSION**

#### **5.1. Presentation**

In this part of the study, summary of the study and discussion part are presented. Secondly, implications of the study are presented. Lastly, suggestions for further researches and researchers are highlighted.

#### **5.2. Discussion**

The fundamental aim of this study was to examine the efficacy of Web 2.0 tools on vocabulary learning. Another aim of this study was to specify which Web 2.0 tool was going to be more efficient in vocabulary learning than the other. Final aim of this study was to assess students' views on two Web 2.0 tools in terms of vocabulary learning. The study was conducted at one of the Private Bahçeşehir Middle Schools in Kırklareli/TURKEY. The study was conducted during five weeks in 2020-2021 academic year. Two groups of students including 29 students in total were utilized. Those students were chosen by convenient sampling method as the researcher was also working as a teacher at the same school and the students were reachable for him.

This study utilized both quantitative and qualitative data to acknowledge more comprehensible results. Quantitative data were gathered through a vocabulary test. A pre-test including 30 words and distractors from the first three units of students' books was developed by the researcher and implemented to both groups first week. Validity of the vocabulary test was ensured by three teachers serving at schools of Ministry of National Education and a senior university lecturer. Following four weeks,

while one group practiced contextualized (unit-related) vocabulary through Kahoot! activities, the other group dealt with Quizlet activities. Vocabulary activities of Kahoot! group included synonyms and definitions of the words. Moreover, fill in the blanks activities were utilized. All the words were related to course book units of the students. Additionally, those activities addressed the reading (receptive) skills of the students. Similarly, vocabulary activities of Quizlet group included definitions and synonyms of the words. Those activities addressed the listening and reading (receptive) skills and writing (productive) skills of the students. During each week of intervention period, students became familiar with target words four times. While Kahoot! group played the Kahoot! of the related week twice, Quizlet group practiced vocabulary through *flashcards*, *learn*, *listen-write*, *matching*, *test* and *gravity* modes. Afterwards, pre-test was implemented to students as post-test to see the quality of change in their vocabulary knowledge. The results of the pre-test and post-test were analyzed using Statistical Package for Social Sciences (SPSS). Quantitative results of the study showed that test scores of both groups increased significantly. As a result, it was concluded that both of the Web 2.0 tools were effective for vocabulary learning.

In order to gather qualitative data, semi-structured interview forms including nine questions were prepared by the researcher and his colleague (who was teaching the seventh graders at the time of the study) for both groups and implemented to students in order to gather their opinions about Web 2.0 tools. The validity of semi-structured interview forms were ensured by three teachers serving at schools of Ministry of National Education and a senior university lecturer. According to results gathered from students in Quizlet group, they really liked using Quizlet and they would offer using it to their friends. They also stated that they would use it outside the classroom for vocabulary revision. They found Quizlet informative, enjoyable and interesting. Most of the students also highlighted that different game modes of Quizlet had a positive effect on their vocabulary learning.

According to results gathered from students in Kahoot! group, they found Kahoot! effective for vocabulary learning. They stated that thanks to the competitiveness it brought to the classroom, Kahoot! created a challenging and



enjoyable learning environment for them. Additionally thanks to Kahoot!, students found a chance to experience learning and having fun at the same time. Finally, they pointed out that they felt themselves in a race during the quizzes and they pushed hard in order to find the right answer as quick as possible.

When it comes to vocabulary teaching, many researchers indicated the efficacy of Web 2.0 tools on this field in the similar line with the results of this study. In line with current study, Dizon (2016, p.52) asserts in his study by evaluating opinions of his students that Quizlet is an effective Web 2.0 tool to revise vocabulary both inside and outside classroom. Similarly, Çınar (2019) states in his study that Quizlet eases students' vocabulary learning and boost their self-confidence. In a study that Emecen (2019) conducted, the researcher concluded that students would prefer Kahoot! to traditional vocabulary learning techniques as it increases their motivation and boosts their vocabulary retention. Wichadee and Pattanapichet (2018) highlight the importance of using Web 2.0 tools in classroom and state that Kahoot! enhances student engagement and motivation. Also, the researchers state that Kahoot! make lessons interesting and fun. In relation to former studies discussed above, this study concludes that use of Web 2.0 tools in classroom for vocabulary teaching is effective, interesting and motivating for learners.

Current study emerged a few unexpected results. Firstly, three students dropped the study for many reasons. A student from Quizlet group left the school and was not able to attend the lessons afterwards. One of the students in Kahoot! group didn't complete the pre-test and another student didn't complete the post-test. As a result, those students were not able to be utilized in this study as it was formerly planned. Lastly, the researcher predicted in the beginning of the study that Kahoot! was going to have a higher impact on vocabulary learning of students rather than Quizlet as it raises competitiveness among learners and push them the right answer as quick as possible. Despite the descriptive statistics partly proved that, ANCOVA result showed that this increase was not only thanks to efficacy of Kahoot! itself but also the effect of pre-test on post-test.

In line with the former studies, current study aimed to present a new perspective to vocabulary teaching field and raise awareness on the use of Web 2.0 tools in classroom for educational purposes.

### **5.3. Implications of the study**

This research includes many important implications for teachers, teacher candidates, schools and curricula.

Firstly, teachers need to be equipped with 21<sup>st</sup> century skills and plan their lessons according to needs of their students. This century's students are called as generation Z who like learning while playing and having fun at the same time. Such students probably would not prefer the classical pen and paper learning methodology. Instead, teachers need to plan more student-centered lessons where students experience the learning process by themselves. Additionally, those students like learning with technology and Web 2.0 tools offer a variety of different opportunities for teachers. Where possible, teachers need to benefit highly from quizzes, videos, games and mobile applications. Once again, teachers need to develop their digital literacy levels and they should not be adhered to classical teaching methodologies.

Secondly, being in the beginning of their teaching careers, teacher candidates should be passionate about using technology in their lessons. Already equipped with theoretical knowledge of English language teaching field, teacher candidates should be encouraged to implement new applications/programs to their lesson plans and they should be given a chance to experience the effect of different applications on their students. Through those applications, students might be involved in lessons and their curiosity might be increased.

Thirdly, schools need to be equipped with tablets, computers and a good quality of internet. In this way, teachers can easily integrate technology into their

lessons and all the students can easily access both to internet and technological tools. In this way, they can readily search for new information, plan their projects and revise what they have already learnt.

Finally, technology might be integrated into curricula through which students can find a chance to experience technology-integrated learning environments. Interactive video links, short quizzes, video links as extension activities and/or homework and a variety of Web 2.0 tools might be utilized during the implementation of curricula into education.

#### **5.4. Suggestions for further researches/ researchers**

In spite of the negative effects COVID-19 lockdown comes out and additional limitations, this study proved the efficacy of Web 2.0 tools on seventh grade students' vocabulary learning. One of the first and most important limitation of the study was to conduct it online because of COVID-19 lockdown. During that time, students' levels of morale were probably low and they would probably had difficulty in focusing on lessons. Even during that time, Web 2.0 tools proved their effectiveness on those students' vocabulary learning. Another important limitation of this study was the lack of control group. Since the nature of middle school classes in current study did not allow a classroom without any Web 2.0 tools, no classroom could be utilized as a control group. Further studies could be conducted face to face in classroom environment and with a control group. This study was also limited only to 29 students. Further studies could be conducted with larger sampling. Additionally, this study lasted for 5 weeks. Further studies could be conducted through a term or whole academic year and effects of Web 2.0 tools for longer period could be examined.

In addition to suggestions above, further studies could examine the effects of Web 2.0 tools on different language items (grammar learning, listening/speaking/writing/reading performances). A comparison can be made with

more groups and different Web 2.0 tools. There may also be a comparison between private and state schools. Researchers need to keep in mind the possible loss of students as it takes long time to conduct the study and students may not be as willing as they were in the beginning of the study. They also need to keep in mind the internet connection and a possible breakdown of technological tools before conducting the study. Vocabulary teaching through Web 2.0 tools is a promising area and needs more researches to be examined as a whole.

## REFERENCES

- Açıkgöz, Z. (2019). *Effects of Two Different Gamified Student Response Systems on Efl Students' Vocabulary Achievement and Intrinsic Motivation*. (Unpublished Master Thesis, Bahçeşehir University, İstanbul, Turkey).
- Alhassan, R. (2017). *Exploring the Relationship between Web 2 . 0 Tools Self-Efficacy and Teachers ' Use of These Tools in Their Teaching*. 6(4), 217–228. <https://doi.org/10.5539/jel.v6n4p217>
- Al Mubarak, A.A. (2017). *Challenges of employing different strategies to learn vocabulary in ESL contexts : A closer look at Al Imam Al Mahdi University-Sudan*. 2(1), 1–17.
- Alqahtani, M. (2015). The importance of vocabulary in language learning and how to be taught. *International Journal of Teaching and Education*, III(3), 21–34. <https://doi.org/10.20472/te.2015.3.3.002>
- Anadol, H, Ö. (2015). *Effectiveness of writing new words multiple times with their Turkish meanings technique for vocabulary retention in teaching English as a foreign language context with reference to teachers' reflection on this technique*. (Unpublished Master Thesis, Karadeniz Technical University, Trabzon, Turkey).
- Andarab, M. S. (2019). Learning vocabulary through collocating on quizlet. *Universal Journal of Educational Research*, 7(4), 980–985. <https://doi.org/10.13189/ujer.2019.070409>
- Association. (2010). In *Oxford Online Dictionary*. Retrieved from <https://www.oxfordlearnersdictionaries.com/definition/english/association?q=asociation>

- Aşıksoy, G. (2018). ELT students' attitudes and awareness towards the use of Web 2.0 technologies for language learning. *Journal of Language and Linguistic Studies*, 14(2), 240–251.
- Barr, B. W. B. (2016). *Checking the Effectiveness of Quizlet as a Tool for Vocabulary Learning*. [https://doi.org/10.15045/ELF\\_0020104](https://doi.org/10.15045/ELF_0020104)
- Bicen, H. & Kocakoyun, S. (2018). *Perceptions of Students for Gamification Approach: Kahoot as a Case Study*. 13(2), 72-93.  
<https://doi.org/10.3991/ijet.v13i02.7467>
- Can, I., Gelmez-Burakgazi, S. & Celik, I. (2019). An investigation of uses and gratifications for using web 2.0 technologies in teaching and learning processes. *International Online Journal of Education and Teaching (IOJET)*, 6(1). 88-102. <http://www.iojet.org/index.php/IOJET/article/view/504>
- Cengizhan, L. (2011). Vocabulary learning strategies: A case of Edirne Anatolian high school. *Procedia-Social and Behavioral Sciences*.  
<https://doi.org/10.1016/j.sbspro.2011.04.018>
- Chien, C. (2013). *Perception and Practice of Taiwanese Efl Learners' Making Vocabulary Flashcards on Quizlet*. Proceedings of the International Conference e-Learning 2013. pp 459-462
- Chien, C. W. (2015). Analysis the effectiveness of three online vocabulary flashcard websites on 12 learners' level of lexical knowledge. *English Language Teaching*, 8(5), 111–121. <https://doi.org/10.5539/elt.v8n5p111>
- Chinnery, G. M. (2006). Going to the MALL : Mobile Assisted Language Learning. *Language Learning & Technology*, 10(1), 9–16. <https://doi.org/ISSN 1094-3501>

- Ciaramella, K., E. (2017). *The effects of Kahoot! on vocabulary acquisition and retention of students with learning disabilities and other health impairments*. (Published master's dissertation). Retrieved from <https://rdw.rowan.edu/etd/2426>
- Cohen, A. D. (2014). *Strategies in learning and using a second language*. (2<sup>nd</sup> ed.). Longman Applied Linguistics. <https://doi.org/10.4324/9781315833200>
- Cook, V. (2008). *Second Language Learning and Language Teaching*. (4<sup>th</sup> Ed.). London : Hodder Education
- Cruz-Wiley,C.(2010). *Vocabulary Strategies*. 1–55. Retrieved from <http://www.houstonisd.org/cms/lib2/tx01001591/centricity/domain/26922/vocabularystrategiesdocument.pdf>
- Çakır, S. (2019). *The effects of five different gamified student response applications on students' vocabulary development and intrinsic motivation in EFL*. (Unpublished Master Thesis, Bahçeşehir University, İstanbul, Turkey).
- Çınar, İ. (2019). *Quizlet Çevrimiçi Kelime Uygulamasının Ortaöğretim Öğrencilerinin Kelime Öğrenmelerine ve İngilizce Dersine Yönelik Tutumlarına Etkisi*. (Unpublished Master Thesis, Eskişehir Osmangazi University, Eskişehir, Turkey).
- DeCarrico, J. (2001). Vocabulary Learning and Teaching. In Celce-Murcia, M.(ed.) *Teaching English as a Second and Foreign Language* (3<sup>rd</sup> Ed.). Heinle & Heinle Publisher, Boston.
- Dellos, R. (2015). Kahoot! A digital game resource for learning. *International Journal of Instructional Technology and Distance Learning*, 12(4), 49-52.

- DiBella, K. S., & Williams, K. G. (2015). Beneficial Web 2.0 Tools to Engage Learners and Maximize Learning. *Journal of Learning in Higher Education*, 11(2), 75–81.  
<http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1139476&site=ehost-live>
- Dizon, G. (2016). Quizlet in the EFL classroom: Enhancing academic vocabulary acquisition of Japanese university students. *Teaching English with Technology*, 16(2), 40–56.
- Dörnyei, Z.(2005). *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition*. Lawrence Erlbaum Associates Publishers.
- Easterbrook, R. M. (2013). *The process of vocabulary learning : Vocabulary learning strategies and beliefs about language and language learning*. (Doctoral dissertation, The University of Canberra, Canberra, Australia). Retrieved from <https://researchprofiles.canberra.edu.au/files/33684687/file>
- Emecen, S. (2019). *A case study in ninth grade students at a state school; Differences and similarities between Kahoot! and traditional activities in terms of vocabulary retention*. (Unpublished Master thesis, Ufuk University, Ankara, Turkey).
- Faiella, F. & Ricciardi, M. (2015). Gamification and Learning: A Review of Issues and Research, *Journal of e- Learning and Knowledge Society*, v.11, n.3, 13-21. ISSN: 1826-6223, e-ISSN: 1971-8829.
- Field, A. (2018). *Discovery statistics using IBM SPSS Statistics (5<sup>th</sup> ed.)*. London, UK: Sage Publications Ltd.



- Folse, K, S. (2004). Myths about teaching and learning second language vocabulary: what recent research says. *TESL Reporter*, 2, 1–13.  
<https://journals.lib.byu.edu/spc/index.php/TESL/article/download/32544/30704>
- Gaer, S. (2017). Reflections on Using Mobile Technology: Quizlet. In Hubbard, P. & Ioannou- Georgiou, S.(Eds.) *Teaching English Reflectively with Technology*. Faversham, UK: IATEFL.
- Glover, I. (2013). Play as you learn : gamification as a technique for motivating learners. *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telemcommunications*,1998–2008.  
<http://shura.shu.ac.uk/7172/>
- Goundar, P. R. (2015). An analysis of Vocabulary Learning Strategies of Adult English as a Foreign Language Learners. *International Journal of Humanities and Cultural Studies* 2(3) 354-395.
- Graham, K. (2015). *TechMatters : Getting into Kahoot!(s): Exploring a Gam e - Based Learning System to Enhance Student Learning*. 42, 6–7.
- Hanson, S., & Padua, J. F. M. (2011). Teaching Vocabulary Explicitly. *Pacific Resources for Education and Learning*, 10.
- Harmer, J. (2007). *The practice of English language teaching* (4<sup>th</sup> Ed.) Harlow: Pearson Longman Limited.
- Hiebert, E. H., & Kamil, M. L. (2005). *Teaching and learning vocabulary bringing research to practice*. London: Lawrence Erlbaum Associates.
- Hong, W. (2008). Exploring educational use of blogs in US education. *US-China Education Review* 5(10): 34–8.

- Hsu, L. (2013). English as a foreign language learners' perception of mobile assisted language learning: A cross-national study. *Computer Assisted Language Learning*, 26(3), 197–213. <https://doi.org/10.1080/09588221.2011.649485>
- Kim, H. & Kwon, Y. (2012). Exploring Smartphone Applications for Effective Mobile-Assisted Language Learning. *Multimedia-Assisted Language Learning*, 15(1), 31–57. <https://doi.org/10.15702/mall.2012.15.1.31>
- Kim, S., Song, K., Lockee, B., & Burton, J. (2018). *Advances in Game-Based Learning Gamification in Learning and Education Enjoy Learning Like Gaming*. <https://doi.org/10.1007/978-3-319-47283-6>
- Kiryakova, G., Angelova, N., & Yordanova, L. (2014). *Gamification in education*. Conference: 9th International Balkan Education and Science Conference. Retrieved from [https://www.researchgate.net/publication/320234774\\_GAMIFICATION\\_IN\\_EDUCATION](https://www.researchgate.net/publication/320234774_GAMIFICATION_IN_EDUCATION)
- Koçak, Y., & Güzin, S. (2009). *Adoption of Web 2 . 0 tools in distance education. 1*, 818–823. <https://doi.org/10.1016/j.sbspro.2009.01.146>
- Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, 20(3), 271–289. <https://doi.org/10.1017/S0958344008000335>
- Kukulska-Hulme, A. (2012). Mobile-Assisted Language Learning. *The Encyclopedia of Applied Linguistics*. <https://doi.org/10.1002/9781405198431.wbeal0768>
- Larson-Hall, J. (2016). *A guide to doing research in second language acquisition with SPSS and R (2<sup>nd</sup> ed.)*. New York, NY: Routledge.
- Lee, J. J. & Hammer, J. (2011). Gamification in Education: What, How, Why Bother? *Academic Exchange Quarterly*, 15(2).

- Lightbown, P. & Spada, N. (1993). *How Languages Are Learned*. Oxford University Press, Oxford.
- Llurda Giménez, E. (2000). Are first and second language acquisition comparable processes?: arguments for the non-equivalence of L1 and L2 learning. In *Revista española de lingüística aplicada* (Issue 14, pp. 259–270).
- Lui, S. (2013). Use of Gamification in Vocabulary Learning: A Case Study in Macau. *CELC Symposium*, 90–97. <http://www.nus.edu.sg/celc/research/books/4thSymposiumproceedings/13>). Sze Lui.pdf
- Miangah, T. M. & Nezarat, A. (2012). Mobile-Assisted Language Learning. *International Journal of Distributed and Parallel Systems*, 3(1), 309–319. <https://doi.org/10.5121/ijdps.2012.3126>
- Montaner-Villalba, S. (2019). The use of Quizlet to enhance vocabulary in the English language classroom. In F. Meunier, J. Van de Vyver, L. Bradley & S. Thouésny (Eds), *CALL and complexity – short papers from EUROCALL 2019* (pp. 304-309). Research-publishing.net. <https://doi.org/10.14705/rpnet.2019.38.1027>
- Nation, P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Nation, I. S. P. (2013). *Learning Vocabulary in Another Language*. Cambridge Cambridge University Press.
- Nemati, M., & Taghizadeh, M. (2013). *Exploring Similarities and Differences between L1 and L2*. 4(9), 2477–2483.
- Oljira, D. (2017). *A Study on Problems of Vocabulary Teaching Techniques English Teachers Use in Holeta Primary Schools : Grade Seven in Focus*. 6(6), 497–505. <https://doi.org/10.21275/15051705>

- Oral, G. A. (2013). *Çalışma Hayatında Kuşaklar ve Çatışmalar*. (Unpublished Master thesis, Bahçeşehir University, İstanbul, Turkey.)
- Painter, C. (1999). *Learning through Language in Early Childhood*. London: Cassell.
- Pattanapichet, F. & Wichadee, S. (2018). *Enhancement of Performance and Motivation through Application of Digital Games in an English Language Class*. 18(1), 77–92.
- Post-test. (2010). In *Longman dictionary of language teaching & applied linguistics*. (4<sup>th</sup> ed.). GB: Pearson Education
- Prensky, M. (2001). *Digital Natives, Digital Immigrants*. 9(5). NCB University Press.
- Pre-test. (2010). In *Longman dictionary of language teaching & applied linguistics*. (4<sup>th</sup> ed.). GB: Pearson Education
- Quizlet Impact Factor (2019). Retrieved from [www.quizlet.com/blog/2019-impact-report](http://www.quizlet.com/blog/2019-impact-report)
- Ricci, V. (2005). *Fitting Distributions with R*. Vienna: R Foundation for Statistical Computing. Retrieved from <https://cran.r-project.org/doc/contrib/Ricci-distributions-en.pdf>
- Robertson, C. E. (2015). *Implementing an online vocabulary training program*. 2015, 486–489. <https://doi.org/10.14705/rpnet.2015.000380>
- Sanosi, A. B. (2018). *The Effect of Quizlet on Vocabulary Acquisition*. 06(04), 71–77.

- Saran, M., Seferoglu, G., & Cagiltay, K. (2009). Mobile assisted language learning: English pronunciation at learners' fingertips. *Egitim Arastirmalari - Eurasian Journal of Educational Research*, 34, 97–114.
- Schmitt, N. (2000). *Vocabulary in language teaching*. Cambridge: CUP.
- Schmitt, N. (2010). *Researching vocabulary: A vocabulary research manual*. New York: Palgrave Macmillan.
- Spratt, M., Pulverness, A., & Williams, M. (2011). Differences between L1 and L2 learning. In *The TKT Course Modules 1, 2 and 3* (TKT Course, pp. 67-71). Cambridge: Cambridge University Press. doi:10.1017/CBO9781139062398.014
- Stockwell, G., & Hubbard, P. (2013). Some Emerging Principles for Mobile-assisted Language Learning. *The International Research Foundation for English Language Education*, 2013, 1–15. <https://doi.org/10.5539/ijel.v3n1p19>
- Şahin, M., & Samur, Y. (2017). Dijital Çağda Bir Öğretim Yöntemi: Oyunlaştırma. *Journal of Ege Education Technologies*, 1(1), 1–27.
- The Kahoot! Guide. (2016). *Creating & Playing Learning Games (1<sup>st</sup> ed.)*. 1–43.  
Retrieved from  
[https://files.getkahoot.com/academy/Kahoot\\_Academy\\_Guide\\_1st\\_Ed\\_-\\_September\\_2016.pdf](https://files.getkahoot.com/academy/Kahoot_Academy_Guide_1st_Ed_-_September_2016.pdf)
- Thornbury, S. (2002). *How to teach vocabulary*. Malaysia: Pearson Education Limited.
- Toy, F. (2019). *The effects of Quizlet on students' and EFL teachers' perceptions on vocabulary learning/teaching process*. (Unpublished Master Thesis, Süleyman Demirel University, Isparta, Turkey).

Viberg, O., & Grönlund, Å. (2012). Mobile assisted language learning: A literature review. *CEUR Workshop Proceedings*, 955, 9–16.

Vocabulary. (2020). In *Cambridge Online Dictionary*. Retrieved from <https://dictionary.cambridge.org/tr/sözlük/ingilizce-türkçe/vocabulary>

Vocabulary. (2010). In *Longman dictionary of language teaching & applied linguistics*. (4<sup>th</sup> ed.). GB: Pearson Education

Webb, S. & Nation, P. (2017). *How Vocabulary is Learned*. Oxford, England: Oxford University Press

Word. (2010). In *Longman dictionary of language teaching & applied linguistics*. (4<sup>th</sup> ed.). GB: Pearson Education

Word. (2020). In *Oxford Online Dictionary*. Retrieved from [https://www.oxfordlearnersdictionaries.com/definition/english/word\\_1?q=word](https://www.oxfordlearnersdictionaries.com/definition/english/word_1?q=word)

## APPENDICES

### Appendix 1

#### Pre-test and Post-test Questions

Değerli öğrenciler,

Aşağıda 30 çoktan seçmeli sorudan oluşan bir kelime testi yer almaktadır. Bu kelime testi kelime bilginizi ölçme amacıyla uygulanacaktır. Soru cümlelerindeki boşluklara uygun gelecek 4 şıktan birini işaretlemeniz gerekmektedir. Ayırdığınız zaman için teşekkür eder, başarılar dilerim.

Utku KURTOĞLU

İngilizce Öğretmeni

1- How have you chosen all these t-shirts ? It is a nice .....

- a) migration                      b) condition                      c) election                      d) collection

2- George: Whose car is it ?

Jelena: It is not mine. It ..... to Joe.

- a) forces                      b) names                      c) belongs                      d) appreciates

3- Hey, is it gold ? Gold is a natural .....

- a) resource                      b) integration                      c) belonging                      d) election

4- Magnus: I can't believe that I have been banned from my favorite video game!

Miriam: Oh, what a pity! For how long ?

Magnus: ....., I'm afraid.

- a) Periodically                      b) permanently                      c) recently                      d) widely

5- What is called when somebody moves from one place to another and turns back again ?

- a) Migration                      b) collection                      c) integration                      d) condition

6- I left my car in front of my house yesterday and I can't find it now. It is a/an .....

- a) condition                      b) existence                      c) theft                      d) immigration

7- Jonas: Hey, is this our bus leaving the bus station ?

Hans: Oh yes. .... to stop it !

- a) Appreciate                      b) force                      c) herding                      d) whistle

8- Oh, please. Stop making this sound. It is very .....

- a) irritating                      b) nomadic                      c) rural                      d) sedentary

9- Where have you been ? I haven't seen you .....

- a) periodically                      b) recently                      c) permanently                      d) widely

10- Many animals have been facing famine. It is a big ..... for their lives.

- a) shepherd                      b) phrase                      c) threat                      d) resource

11- My company will send me to Canada for a seminar. It is an excellent ..... to practice my English.

- a) identity                      b) necessity                      c) predator                      d) opportunity

12- You don't need to ..... me with questions. Let me explain the topic first.

- a) bombard                      b) capture                      c) settle                      d) endanger

13- How is the term called if we are talking about a thousand years ?

- a) troop                      b) hyphen                      c) generation                      d) millennium

14- This exam has ..... rules. You can't even use your friend's rubber. You need to bring your own rubber.

- a) familiar                      b) nomadic                      c) confused                      d) restrictive

15- It is hard to ..... a country unlike it was once.

- a) settle                      b) capture                      c) endanger                      d) bark

16- Please don't ..... in this. It doesn't matter you.

- a) interfere                      b) represent                      c) activate                      d) improve

17- Each animal feels itself comfortable in its unique .....

- a) necessity                      b) troops                      c) ecosystem                      d) opportunity

18- The number of ..... who are forced to leave their countries have been increasing day by day.

- a) plains                      b) migrants                      c) identities                      d) refugees



- 19- I have difficulty in finding the right answer. I'm very..... right now.  
a) familiar                      b) confused                      c) overland                      d) nomadic
- 20- If you want to get a better job, you should ..... your skills.  
a) capture                      b) interfere                      c) improve                      d) endanger
- 21- It is not a natural fountain. It is .....  
a) artificial                      b) imagery                      c) navigation                      d) vibration
- 22- Be careful with the illnesses. Some of them are highly .....  
a) rustling                      b) voiced                      c) unvoiced                      d) contagious
- 23- Your account is not ready to use, sir. You need to ..... it first.  
a) represent                      b) activate                      c) belong                      d) interfere
- 24- App is the ..... of the word 'application'.  
a) installation                      b) function                      c) abbreviation                      d) navigation
- 25- I'm really excited to play this computer game but I have to wait for its ..... for 20 minutes.  
a) soundscape                      b) browser                      c) vibration                      d) installation
- 26- It is believed that the World was composed of tiny .....  
a) particles                      b) circumstances                      c) sirens                      d) airflows
- 27- I can't hear properly. The ..... of music was too much.  
a) insight                      b) intensity                      c) vacuum                      d) probability
- 28- I have never experienced this kind of situation. I can't ..... it with my previous knowledge.  
a) bark                      b) belong                      c) relate                      d) force
- 29- I have ..... grades at school. I'm neither too lazy nor too successful.  
a) leading                      b) artificial                      c) faint                      d) moderate
- 30- I don't like this color. It is too ..... I mostly like bright colors.  
a) faint                      b) contagious                      c) nomadic                      d) confused

## Appendix 2

### Semi-Structured Interview Form for Kahoot! group

Sevgili öğrenciler,

4 hafta boyunca işlediğimiz ünitelerdeki kelimeleri ‘‘Kahoot!’’ kullanarak tekrar ettik. Bu görüşme formu sizin Kahoot! ile ilgili görüşlerinizi almak amacıyla oluşturulmuştur. Vereceğiniz cevaplar kelime öğretiminde Kahoot! ve Quizlet uygulamalarının karşılaştırılmasını konu alan yüksek lisans tezimde kullanılacaktır. Ayırdığınız vakit için teşekkür ederim.

Utku KURTOĞLU

İngilizce Öğretmeni

1- Kahoot! uygulamasının kelime öğreniminde etkili olduğunu düşünüyor musunuz ?  
Neden ?

2- Kahoot! uygulamasının kelime öğreniminde size hangi yönleriyle yardımcı olduğunu düşünüyorsunuz? Sebepleriyle açıklayınız.

3- Kahoot! uygulamasının kelime öğreniminde size hangi yönleriyle yardımcı olmadığını düşünüyorsunuz? Sebepleriyle açıklayınız.

4- Sizce Kahoot! eğlenceli bir uygulama mı ? Öyleyse, hangi yönleriyle eğlenceli ?

5- Sizce Kahoot! uygulamasının kullanımı kolay mı ? Öyleyse, hangi özellikleriyle ?

6- Yazılı kelime listeleriyle kıyaslarsanız Kahoot!'u tercih eder misiniz ? Neden ?

7- Kahoot! uygulamasını kelimeleri tekrar etmek amacıyla sınıf dışında da kullanır mısınız ?

8- Kahoot! uygulamasını kullanmayı arkadaşlarınıza da tavsiye eder misiniz ?

9- Kahoot!'un sıralama yöntemi sizi oynarken ne yönde etkiledi? Pozitif mi yoksa negatif mi ? Sebepleriyle belirtiniz.

### Appendix 3

#### Semi-Structured Interview Form for Quizlet group

Sevgili öğrenciler,

4 hafta boyunca işlediğimiz ünitelerdeki kelimeleri ‘Quizlet’ kullanarak tekrar ettik. Bu görüşme formu sizin Quizlet ile ilgili görüşlerinizi almak amacıyla oluşturulmuştur. Vereceğiniz cevaplar kelime öğretiminde Kahoot! ve Quizlet uygulamalarının karşılaştırılmasını konu alan yüksek lisans tezimde kullanılacaktır. Ayırdığınız vakit için teşekkür ederim.

Utku KURTOĞLU  
İngilizce Öğretmeni

- 1- Sizce Quizlet kelime öğrenimi için etkili bir uygulama mı ? Neden ?
- 2- Quizlet uygulamasının kelime öğreniminde size hangi yönleriyle yardımcı olduğunu düşünüyorsunuz? Sebepleriyle açıklayınız.
- 3- Quizlet uygulamasının kelime öğreniminde size hangi yönleriyle yardımcı olmadığını düşünüyorsunuz? Sebepleriyle açıklayınız.
- 4- Sizce Quizlet eğlenceli bir uygulama mı ? Öyleyse, hangi yönleriyle eğlenceli ?
- 5- Sizce Quizlet uygulamasının kullanımı kolay mı ? Öyleyse, hangi özellikleriyle ?
- 6- Yazılı kelime listeleriyle kıyaslıyorsanız Quizlet'i tercih eder misiniz ? Neden ?

7- Quizlet uygulamasını kelimeleri tekrar etmek amacıyla sınıf dışında da kullanır mısınız ?

8- Quizlet uygulamasını kullanmayı arkadaşlarınıza da tavsiye eder misiniz ?

9- Hangi oyun modu/ modlarını sevdiniz ? Neden ?

## Appendix 4

### School Consent Form

#### ÖZEL LÜLEBURGAZ BAHÇEŞEHİR KOLEJİ ORTAOKULU MÜDÜRLÜĞÜ'NE

LÜLEBURGAZ  
01.09.2020

Trakya Üniversitesi Sosyal Bilimler Enstitüsü İngiliz Dili Eğitimi Anabilim Dalı yüksek lisans tez çalışmam kapsamında " Vocabulary teaching through Web 2.0 tools: A comparison of Kahoot! and Quizlet" konulu araştırmam için 7-A ve 7-B sınıflarında Eylül-Ekim 2020 tarihleri arasında çalışma yapmak istiyorum.

Bilgilerinizi ve onaylarınızı arz ederim.

Utku KURTOĞLU

İngilizce Öğretmeni

#### Ekler

Ek 1- Ön test/ Son test

Ek 2- Yarı- yapılandırılmış görüşme formları

ÖZEL LÜLEBURGAZ BAHÇEŞEHİR KOLEJİ ORTAOKULU	
KAYIT	TARİH 01/09/2020
	SAYI 99983069
HAVALE	GEREĞİ Müdür Yardımcısı
	BİLGİ 045.01/125
DOSYA NO	
EKLER	33

Halide Duygu PERAN  
ÖZEL LÜLEBURGAZ  
BAHÇEŞEHİR KOLEJİ  
Ortaokulu Müdürü

Uygundur

