



T.C.

BURSA ULUDAG UNIVERSITY

THE INSTITUTE OF EDUCATIONAL SCIENCES

THE DEPARTMENT OF FOREIGN LANGUAGE EDUCATION

THE DIVISION OF ENGLISH LANGUAGE TEACHING

**THE EFFECTS OF USING KAHOOT! AS A DIGITAL TOOL ON
ENHANCING ENGLISH VOCABULARY OF SECONDARY SCHOOL
STUDENTS' LEARNING ENGLISH AS A FOREIGN LANGUAGE**

MASTER'S THESIS

Tuğba KASAP

0009-0008-3599-5120

BURSA – 2023



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Supervisor

Assoc. Prof. Dr. Ufuk ÖZEN BAYKENT

BURSA, 2023

BİLİMSEL ETİĞE UYGUNLUK

Bu çalışmadaki tüm bilgilerin akademik ve etik kurallara uygun bir şekilde elde edildiğini beyan ederim.

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Tarih: 03/08/2023

TEZ YAZIM KILAVUZU'NA UYGUNLUK ONAYI

“İngilizceyi Yabancı Dil Olarak Öğrenen Ortaokul Öğrencilerinin İngilizce Kelime Dağarcığını Geliştirmede, Dijital bir Eğitim Materyali Olan Kahoot! Kullanımının Etkileri” adlı Yüksek Lisans / Doktora tezi, Bursa Uludağ Üniversitesi Eğitim Bilimleri Enstitüsü tez yazım kurallarına uygun olarak hazırlanmıştır.

Tezi Hazırlayan

Tuğba KASAP

Danışman

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Yabancı Diller Eğitimi Ana Bilim Dalı Başkanı

Prof. Dr. Ayşegül Amanda YEŞİLBURSA



EĞİTİM BİLİMLERİ ENSTİTÜSÜ
YÜKSEK LİSANS BENZERLİK YAZILIM RAPORU

BURSA ULUDAĞ ÜNİVERSİTESİ
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Yukarıda başlığı gösterilen tez çalışmamın a) Kapak sayfası, b) Giriş, c) Ana bölümler ve d) Sonuç, Tartışma ve Öneriler kısımlarından oluşan toplam 96 sayfalık kısmına ilişkin, 02/08/2023 tarihinde şahsım tarafından Yüksek Lisans Tez – Tuğba Kasap adlı benzerlik tespit programından (Turnitin)* aşağıda belirtilen filtrelemeler uygulanarak alınmış olan özgünlük raporuna göre, tezimin benzerlik oranı %15 ‘dir.

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Eğitim Bilimleri Ana Bilim Dalı'nda 802293016 numara ile kayıtlı Tuğba KASAP'ın hazırladığı “İngilizceyi Yabancı Dil Olarak Öğrenen Ortaokul Öğrencilerinin İngilizce Kelime Dağarcığını Geliştirmede, Dijital bir Eğitim Materyali Olan Kahoot! Kullanımının Etkileri” konulu (Yüksek Lisans) çalışması ile ilgili tez savunma sınavı,/20... günü 00:00-00:00 saatleri arasında yapılmış, sorulan sorulara alınan cevaplar sonunda adayın tezinin **(başarılı/başarısız)** olduğuna **(oybirliği/oy çokluğu)** ile karar verilmiştir.

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ÖZET

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İNGİLİZCEYİ YABANCI DİL OLARAK ÖĞRENEREN ORTAOKUL ÖĞRENCİLERİNİN İNGİLİZCE KELİME DAĞARCIĞINI GELİŞTİRMEDE, DİJİTAL BİR EĞİTİM MATERYALİ OLAN KAHOOT! KULLANIMININ ETKİLERİ

Özellikle pandemi dönemi sonrası son birkaç yıldır, İngilizce öğretiminde teknoloji kullanımı ve oyunlaştırma büyük ölçüde kullanılmaktadır. Öğretmenler arası bilgi alışverişi sayesinde, derslerde kullanılan teknolojik materyaller ve dersi oyunlaştırma giderek yaygınlaşmış, öğretmenlerin ders esnasında etkinlik bulma konusunda işini kolaylaştırmıştır. Teknolojik gelişmeleri yakından takip eden eğitimciler arasında sıklıkla kullanılan dijital bir eğitim materyali olan Kahoot!, birçok derste kullanılan, oldukça popüler bir uygulamadır. İkinci dil olarak İngilizce öğrenen öğrenciler arasında Kahoot!'un etkinliğini araştırmak için yapılan birçok araştırma olmasına rağmen, ortaokul seviyesinde İngilizce kelime edinimi üzerine yapılmış çok az çalışma vardır. Bu çalışma, kelime öğreniminin yanı sıra, bu kelimelerin ne kadar kalıcı olduğunu, öğrenilen kelimelerin ne şekilde pekiştirildiğini, kalıcı öğrenmeleri sağlayan en önemli unsurları ve programın etkili kullanımını en iyi şekilde ortaya koymayı amaçlamıştır. Bu programın diğer derslere de uygulanabilirliği hakkında pek fazla çalışma yoktur. Bu çalışmanın asıl amacı, gelişen teknoloji ile önemi her geçen gün artan Web 2.0 digital eğitim araçlarından birisi olan Kahoot! kullanımının 7. Sınıf öğrencilerinin yabancı dilde kelime öğrenme başarıları üzerindeki etkilerini araştırmaktır. Kelime edinimindeki başarıyı

geleneksel alıştırma yöntemleri ve Kahoot! aracı ile karşılaştırmayı hedeflemektedir. Bununla birlikte, her iki uygulamanın uzun vadede kelime edinimdeki kalıcılığı araştırılacaktır.

Araştırma İstanbul'da bir devlet ortaokulunda 7. Sınıflarda yürütülmüştür. Katılımcılar İstanbul ilinde bir devlet ortaokulunda kayıtlı 13 yaşında 7. Sınıf öğrencileriydi. (n=60). 7. Sınıflar için kullanılmakta olan İngilizce Ders Kitabı'ndan (Bilim ve Kültür Yayınları) araştırma için seçilmiş 2 ünite de öğretilmesi hedeflenen 24 (8x4) kelime belirlenip ve ünitelerin öğretiminde kullanılacak ders materyalleri (görsel ve işitsel) hazırlanmıştır. 4 hafta süren eğitim öncesi katılımcılara ön test uygulanmıştır. Deney grubu 4 haftalık eğitim boyunca Kahoot! Uygulaması kullanarak kelime alıştırması yapmıştır. Öte yandan, kontrol grubuna geleneksel yöntemle hazırlanmış kelime alıştırması uygulanmıştır. 4 hafta süren eğitimin ardından uygulanan son test yoluyla deney ve kontrol grubu arasındaki kelime edinimdeki başarı karşılaştırılmıştır. Son testi takip eden 4. haftada geciktirilmiş son test uygulanarak, sonuçları kelime edinimindeki kalıcılığı gözlemlemek üzere değerlendirilmiştir. Geciktirilmiş son testi takip eden hafta ise yarı yapılandırılmış görüşme kullanılarak Kahoot! kullanımına yönelik olarak öğrenci deneyim ve görüşüne başvurulmuştur.

Anahtar sözcükler: Kahoot!, Kelime öğrenimi , Kelime Öğretimi, Oyunlaştırma

ABSTRACT

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THE EFFECTS OF USING KAHOOT! AS A DIGITAL TOOL ON ENHANCING ENGLISH VOCABULARY OF SECONDARY SCHOOL STUDENTS' LEARNING ENGLISH AS A FOREIGN LANGUAGE

Especially in the last few years after the pandemic period, the use of technology and gamification have been widely used in English teaching. Thanks to the exchange of information between teachers, the technological materials used in the lessons and the gamification of the lesson have become increasingly widespread, making it easier for teachers to find activities during the lesson. Kahoot!, a digital educational material that is frequently used among educators who closely follow technological developments, is a very popular application used in many courses. Although there is a lot of research to investigate the effectiveness of Kahoot! among students learning English as a second language, very few studies have been done on English vocabulary acquisition at the secondary school level. In addition to vocabulary learning, this study aimed to reveal how permanent these words are, how the learned words are reinforced, the most important elements that provide permanent learning and the effective use of the program in the best way. There are not many studies about the applicability of this application to other courses. The main purpose of this study is Kahoot! The aim of this study is to investigate the effects of the use of Kahoot! on 7th grade students' success in foreign language learning. Traditional practice methods and Kahoot! gamification tool will compared. However, the long-term retention of both methods in vocabulary acquisition will be investigated.

The research was carried out in 7th grades in a public secondary school in Istanbul. In the study, there were 13-year-old students (n=60) from a state school located in the province of Istanbul. In the present study, 24 (8x4) words aimed to be taught in 2 units selected for research were determined from the English Textbook (Science and Culture Publications) used for 7th Grades, and course materials (visual and audio) to be used in the teaching of the units were prepared. A pretest was applied to the participants before the treatment, which lasted 4 weeks. During the 4-week treatment, the experimental group Kahoot! He practiced vocabulary using the application. On the other hand, a traditional vocabulary exercise was applied to the control group. The success in vocabulary acquisition between the experimental group and control group was compared through the posttest applied after the 4-week treatment. In the 4th week following the posttest, the delayed posttest was applied and the results were evaluated to observe the retention in vocabulary acquisition. In the week following the delayed posttest, a semi-structured interview was used to gather some information about students' experience and opinion regarding the use of Kahoot.

Keywords: Gamification, Kahoot!, Vocabulary learning, Vocabulary teaching,

I dedicate this thesis to my daughter...

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TABLE OF CONTENTS

BİLİMSEL ETİĞE UYGUNLUK SAYFASI.....	ii
TEZ YAZIM KLAVUZUNA UYGUNLUK ONAYI.....	iii
YÜKSEK LİSANS BENZERLİK YAZILIM RAPORU.....	iv
JÜRİ ONAY SAYFASI.....	v
ÖZET.....	vi
ABSTRACT.....	viii
ACKNOWLEDGEMENTS.....	xi
TABLE OF CONTENTS	xii
LIST OF TABLES.....	xvi
LIST OF FIGURES.....	xvii

CHAPTER ONE

INTRODUCTION

1.1. Background to the Study.....	1
1.1.1. The Significance of Vocabulary in Learning a Language.....	1
1.1.2. Vocabulary Teaching Techniques.....	3
1.1.3. Digital Game-Based Learning.....	3
1.1.4. Kahoot!.....	5
1.2. The Statement of the Problem	7
1.3. The Purpose of the Study	9
1.4. The Significance of the Study	10
1.5. Research Questions	11
1.6. Assumptions	11
1.7. Definitions	12

CHAPTER TWO
LITERATURE REVIEW

2.1. Vocabulary	13
2.1.1 Learning Vocabulary.....	14
2.1.2. Teaching Vocabulary.....	17
2.1.3. The Use of Technology in Vocabulary Teaching.....	18
2.1.4. Gamification in Vocabulary Teaching.....	19
2.2. Mobile- Assisted Language Learning (MALL).....	21
2.3. The Use of Kahoot! in Vocabulary Teaching and Related Studies.....	23

CHAPTER THREE
METHODOLOGY

3.1. Research Design & Procedure	25
3.2. Participants	28
3.3. Instruments	29
3.3.1. The Choice of Target Words	29
3.3.2. Teaching Materials	29
3.3.3. Kahoot!	31
3.3.4. Pretests	32
3.3.5. Posttest	33
3.3.6. Delayed Posttest	33
3.3.7. Semi-structured Interview	34
3.4. Data Analysis	34

CHAPTER FOUR
DATA ANALYSIS AND FINDINGS

4.1. Presentation.....	35
4.2. Results.....	35
4.3. Findings of Quantitative Data.....	35
4.3.1. Comparison of Placement Test Scores.....	35
4.3.2. Comparison of Pre-Test Means.....	36
4.3.3 Comparison of Post-Test Means.....	38
4.3.4. Comparison of the Retention Test Means.....	40
4.3.5. Intra-Group Comparisons of Pre-Test and Post-Test Scores.....	41
4.3.6. Intra-Group Comparisons of Posttest and Retention Test Scores.....	42
4.4 Findings of Qualitative Data.....	44
4.4.1. Efficacy.....	46
4.4.2. Ranking System.....	47
4.4.3. Favourable and Unfavourable Features of Kahoot!.....	47
4.4.4. Interaction and engagement.....	48
4.4.5. Competition.....	49
4.4.6. Learning and knowledge retention:	49
4.4.7. Fun and Enjoyment.....	50

CHAPTER FIVE
RESULTS AND DISCUSSION

5.1. Overview.....	51
5.1.1. Discussion of Research Question 1.....	51
5.1.2. Discussion of Research Question 2.....	53
5.1.3. Discussion of Research Question 3.....	53
5.1.4. Discussion of Research Question 4.....	54

CHAPTER SIX

CONCLUSION

Conclusion.....	56
6.1 Limitations of the Study.....	57
6.2. Suggestions for Further Research.....	58
References.....	59
Appendices.....	66
Appendix 1: Approval Form of Provincial Directorate of National Education of İstanbul...66	
Appendix 2: Teaching Materials.....	67
Appendix 3: Pretest.....	73
Appendix 4: Posttest.....	75
Appendix 5: Delayed Posttest.....	77
Appendix 6: Semi Structured Interview Questions.....	79

List of Tables

<i>Table</i>	<i>Page</i>
1. Summary of National Reading Panel’s Specific Conclusions about Vocabulary Instruction.....	15
2. Procedure.....	27
3. Participants.....	29
4. Descriptive statistics on the placement test.....	35
5. Normality Test Result for the placement test.....	36
6. Result of Mann Whitney U Test for the placement test.....	36
7. Descriptive statistics on pretest scores.....	37
8. Normality Test Result for pretest scores.....	37
9. Levene Test Result on pretest scores.....	37
10. Independent samples t-test result for pretest means.....	38
11. Descriptive statistics on posttest scores.....	38
12. Normality Test Result for posttest scores.....	39
13. Mann Whitney U Test Result for posttest scores.....	39
14. Descriptive statistics on retention test scores.....	40
15. Normality Test Result for retention test scores.....	40
16. Result of Mann Whitney U test for retention test.....	41
17. Average number of ranks for pretest and posttest scores.....	41
18. Wilcoxon Signed Rank test result.....	42
19. Average ordinal numbers of posttest and retention test scores.....	43
20. Wilcoxon Signed Rank test result.....	43
21. Themes of the interview.....	44
22. The Codes that Included the Positive Views of Students about Kahoot! Application.....	45
23. The Codes that Included the Negative Views of Students about Kahoot! Application....	46

List of Figures

<i>Figure</i>	<i>Page</i>
1. Millionaire programmer digital game application.....	4
2. Kahoot! digital game application.....	4
3. Quizlet digital game application.....	5
4. Kahoot! teacher screen.....	6
5. Kahoot! student screen.....	6
6. An example podium of the Quiz on pollution.....	7
7. A reciprocal model of vocabulary and reading comprehension.....	16
8. Published articles per year according to databases.....	20
9. A question from Celebrations Unit.....	30
10. A question from Celebrations Unit.....	30
11. A question from Celebrations Unit.....	30
12. Virtual Podium.....	31

CHAPTER 1

INTRODUCTION

1.1. Background to the Study

“Words play an enormous part in our lives and are therefore deserving of the closest study.”

-Aldous Huxley.

1.1.1. The Significance of Vocabulary in Learning a Language: Vocabulary is an important aspect in both language learning and English as a Foreign Language (EFL) contexts and it often refers to the knowledge of the words of a language. It is crucial to expand vocabulary knowledge as a learner of English and also it is useful for enhancing knowledge and skills in other fields and various aspects of language. However, this was not the case before the 1970s in EFL education. There were two reasons for that. The first one is that vocabulary was not considered to be an independent component and was taught in grammar lessons. The second reason is that vocabulary was not considered as important and fundamental as the other components of language. According to Allen (1983), learners often believed that all they needed was a large number of words, along with the definitions of that words in their own language. This belief was wrong because not only the meaning but also the way they work together was very important. In 1980s, as the popularity of communicative approach started to increase, language teachers and researchers attended to the significance of developing receptive vocabulary of learners of English, particularly at the very early stages of language learning (Nunan, 1991).

Vocabulary learning is also an important aspect in reading skill of a student and it directly and strongly affects students' vocabulary knowledge extension and their overall academic success. They feel confident in speaking and in comprehending a reading passage when they know the vocabulary taught by their teachers.

Vocabulary learning is an ongoing process and it starts at a very young age. It continues to accumulate with the time and schooling and etc. The process of vocabulary learning is never over for either a child or an adult. As the learners' vocabulary increases, they can better comprehend the messages conveyed by other language users in varying contexts.

Sinatra, Zygouris-Coe, and Dasinger (2011) express the importance of vocabulary as: Knowledge of vocabulary meanings affects children's abilities to understand and use words appropriately during the language acts of listening, speaking, reading, and writing. Such knowledge influences the complexities and nuances of children's thinking, how they

communicate in the oral and written languages, and how well they will understand printed texts. (p. 333). It can be implied that four skills in language learning are supported by the knowledge of the meanings of words in both spoken and written language forms. Furthermore, it is argued that the increase in the number of words learnt affects the thinking of children.

Although it seems easy to define, vocabulary, in many studies, is divided into categories. Ellis and Tomlinson (1980) break the vocabulary down to two categories: passive/receptive vocabulary and active/productive vocabulary. Jo Ann Aeborsold and Mary Lee (1997) has the same categories as Ellis and Tomlinson, active/passive vocabulary. Stephen Lauber (2014), on the other hand, has identified three types of vocabulary. These are academic vocabulary, content vocabulary, and support vocabulary. Academic vocabulary is usually used by students in academic contexts and textbooks. Content vocabulary is used in specific subject, area or discourse. Support vocabulary is mainly used to reinforce an idea to make it easy to understand. According to some researchers and educators (e.g., Nation, 1990), students have a number of different vocabularies including receptive or recognition vocabulary, which is understood in reading, and productive or expressive vocabulary, which is used in speaking and writing. Nation later (2001) added that there are four types of vocabulary in the text. These are high frequency words, academic words, technical words and last one is low frequency words. Schmitt (1997) classifies vocabulary learning strategies into two groups. The first group determines the meaning of new vocabulary items which the learners face for the first time, and contains determination and social strategies. The second group, on the other hand, entails strategies which consolidate the meaning of vocabulary items when encountered again by the learners.

It is undeniable that vocabulary learning is crucial for learners who want to improve their reading, writing, speaking and listening skills. Whereas, among the teachers, teaching vocabulary is a controversial issue for a long time (Coady & Huckin, 1997). Schmitt and McCarty (1997) explain that vocabulary has an important role for students to master four skills in English. For example, in listening, with sufficient vocabulary mastery will make the students easier to understand what is conveyed by others. In reading and writing, having sufficient vocabulary will help the students write their ideas smoothly and understand the text they are reading easily. In speaking, having sufficient vocabulary will make the students express their idea or communicate with others fluently. Some teachers believe that vocabulary should be taught indirectly, while others think that traditional methods like memorizing word lists is fine.

1.1.2. Vocabulary Teaching Techniques: English teachers develop and use practical vocabulary teaching techniques while teaching vocabulary. Thanks to these teaching techniques, students can develop their own methods or strategies while learning the meaning of a word. Wilkins (1972, p. 111) suggests “without grammar, very little can be conveyed but without vocabulary nothing can be conveyed.” This, in turn, shows the necessity of putting emphasis on teaching vocabulary and vocabulary learning activities. Considering the importance of vocabulary teaching, the techniques used while teaching vocabulary worths attention:

1. Visual Techniques: Gairns and Redman (1980) says that visual techniques are applied by the use of “realia, pictures, and mime or gestures.” Realia is kind of object that reminds the learner the vocabulary that they are supposed to learn in the lesson.

2. Verbal Techniques: This technique is related to the synonyms, antonyms, categories and definition. In this technique, teacher explains the word in different ways, by giving its definition or telling the synonym and encourages the students to guess the meaning and then make them learn the word.

3. The Use of Dictionary: Using a dictionary is a very old and traditional way to learn the meaning of a word. By using a dictionary, students can also encounter new words or quotes as they flip the pages of their dictionary. They can also see the definition and a sentence in which the word is used.

1.1.3. Digital Game-Based Learning: A digital game is any game that is played with the assistance of a computer or other electronic device. Digital Game-Based Learning is a concept that occurred with the development of technology especially in computer sciences and distant education. One of the ways to increase student engagement is using game-based learning activities. As Games or digital games are universal tools that are understood by all, the young, the old, the adult and more (Farber, 2015; Gee, 2007). Gaming is a fact in which the gamer creates a virtual relationship with the game and it makes the gamer pay full attention, motivating them as well. With the help of games, students as gamers does not feel like a learner as the environment, they are in is completely different from the one they are exposed to in classroom teaching. Gee (2007) says that digital games include the learning component and this makes people attracted to the games.

Prensky (2003) in his book titled “Digital Game-Based Learning” describes DGBL as the fact of blending course content with digital games to make teaching and learning more

effective for digital learners. He later elaborates on the concept of DGBL stating that its benefits include:

- Providing a learning style and environment that is adapted for modern day learners.
- Promoting engagement during learning and teaching.
- Promoting education that is learner-centred as opposed to being teacher-centred.

Popularity of DGBL is increasing day by day especially after the Covid-19 Pandemic, DGBL gained much more importance. During distance teaching, teachers used many games and tools called Web 2.0. which created competitive environment among students. While teaching, students expect playing games during the lesson as are digital learners. There are many games such as Quizzlet, Kahoot!, Voscreen, Qizzizz, Baamboozle, Wordwall and more. The following figures (Figure 1.1, 1.2., 1.3.) display examples of attractive these digital game applications.

Figure 1

Millionaire programmer digital game application



Figure 2

Kahoot! digital game application

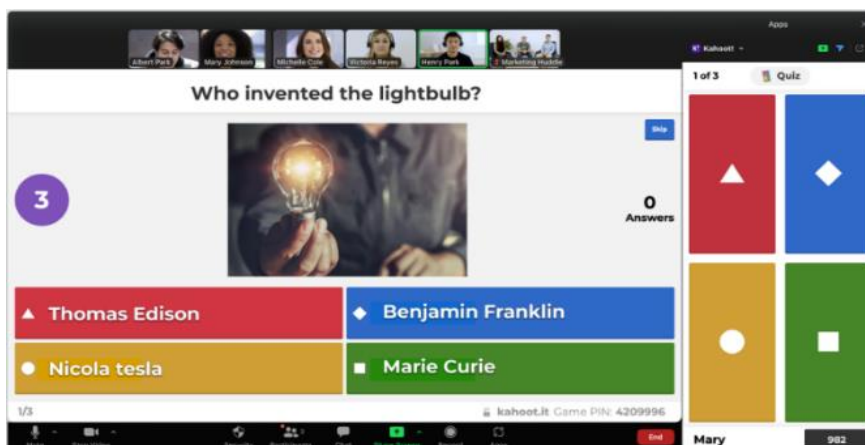
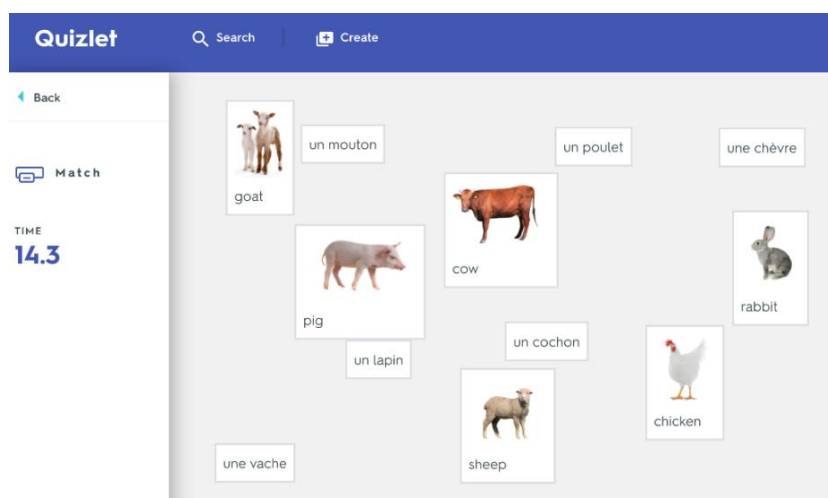


Figure 3

Quizlet digital game application



1.1.4. Kahoot: Kahoot is a game-based student response system (GSRS) where the classroom environment is temporarily transformed into a game show where the teacher is the game show presenter, and the students are the contenders (Wang, 2015). It is a web-based platform that enables learners to create and play interactive, multiple-choice types of games (Zucker & Fisch, 2019). This platform is a result of the Lecture Quiz research project initiated at the Norwegian University of Science and Technology in 2006, where multiple prototypes were developed and evaluated through experiments over several years (Wang, Øfsdal, & Mørch-Storstein, 2007). Kahoot! is free and easy to use. Teachers can join Kahoot! for free and begin to prepare their own quizzes or choose from the library that other educators prepared beforehand. Quizzes can have visual effects like pictures and also music or videos at the background. The games prepared by teachers can be saved and then can be used where the internet access is available. Students can connect from their personal computers, smartphones, tablets to answer the questions. Students are asked to create a nickname called screen name and the game code to get started. When the game starts, students get points for the accuracy of their answers and also quickness. In the end, students receive an overall point and the top three scores are displayed on the virtual podium. Students feel extremely excited when they see their nicknames on the podium. Kahoot! increases engagement through competition and provides an exciting method of formative assessment.

Teachers often have a hard time in making their students focus on the topic during lecture, and after the first 10 minutes of lesson, students' attention begins to decline (Fotaris , Mastoras , Leinfellner & Rosunally , 2016). To direct their attention to the lesson again, the

teachers should make a change in the environmental circumstances and engage learners. Kahoot! is a web-based quizzing programme used during the lessons not only to make the lessons more entertaining but also to give for formal instruction. Kahoot gives a game-like atmosphere to the learning experience by adding some features like timers, music, and a virtual podium. This gamification approach enhances student motivation, making learning more exciting and memorable. Kahoot quizzes can specifically be used for vocabulary and grammar teaching, even for teaching pronunciation as you can embed audios into the questions. Main requirements for the platform was that it should be straightforward for teachers to create own content, play quizzes and assess the students, and for the students to join without need to register, play without embarrassment (anonymously), have fun, be competitive, and learn (Wang, 2015). Kahoot! teacher and student screens are shown in the figures below (Figure 4 and 5)

Figure 4

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

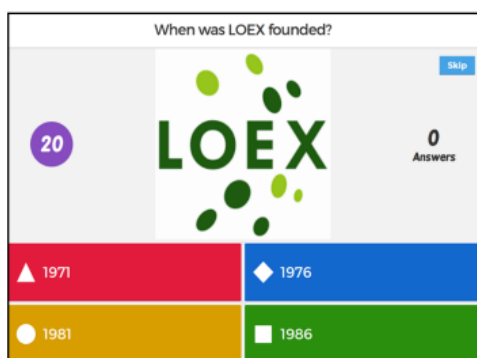


Figure 5

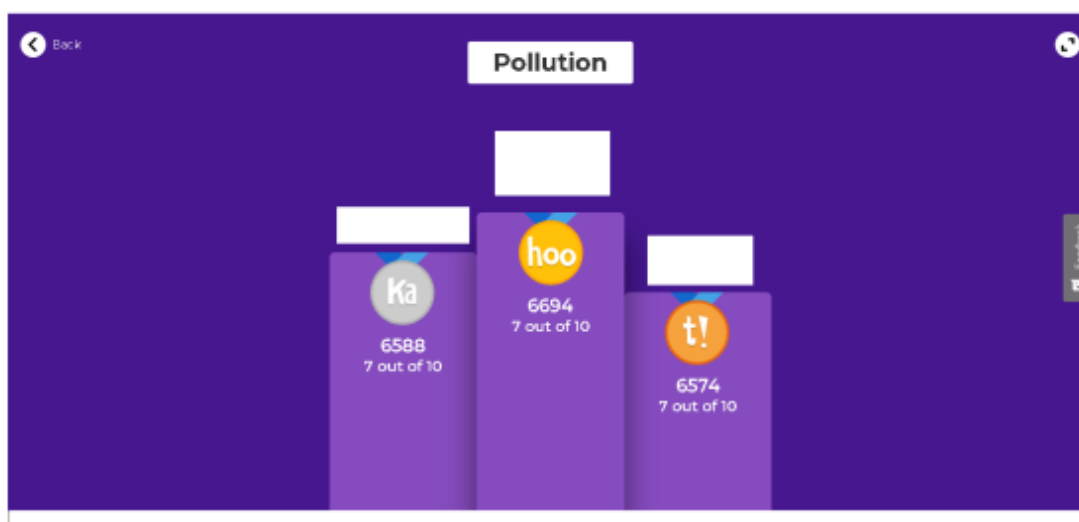
Kahoot! student screen (Graham,2015, p.7)



As it is seen in the Figures 4 and 5 above, each colour 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 rapid decisions. This is an extra motivation for them as they see their scores after each answer on the leader board. Through the leader board, 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. The following Figure 6 shows an example of such a podium where the students have a chance to see their names.

Figure 6

An example podium of the Quiz on pollution



Through the leader board, 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.

1.2. The Statement of the Problem

Every language has its own vocabulary. With the help of vocabulary, users of that language can express their feelings and ideas to other people. Yet, with limited vocabulary this communication would be very restricted. For this reason, vocabulary is a very important part of a language. Words, when came together, constitute language that conveys meaning. Thus, utterances are made of words. Merriam- Webster Dictionary defines vocabulary as “a list or collection of words or of words and phrases usually alphabetically arranged and explained or

defined.” Amvela (2007) defines vocabulary as the total words stock in a language. Hiebert and Kamil (2005) also define vocabulary as “the knowledge of meanings of words” (p.3).

However, learning vocabulary is a complex process. Nagy and Scott (2000) emphasize how complex word knowledge is by listing five main aspects of this complexity which are given below:

- a) “incrementality: knowing a word is a matter of degrees, not all-or nothing”,
- b) “multidimensionality: word knowledge consists of several qualitatively different types of knowledge”,
- c) “polysemy: words often have multiple meanings”,
- d) “interrelatedness: one’s knowledge of any given word is not independent of one’s knowledge of other words”,
- e) “heterogeneity: what it means to know a word differs substantially depending on the kind of word” (p.106).

Nation (2001) states that depth of vocabulary knowledge has been explained many times but it is clearly true that to fully know the meaning of a word, different types of word knowledge is needed. Bölükbaş (2013) also states that as teaching and developing a new vocabulary is a multidimensional process, one can think that the vocabulary is learnt when heard for the first time but they can easily be forgotten if they are not placed in the memory continuously. What is more, knowing and recalling the meaning of a word does not mean that it is totally learned.

Vocabulary constitutes a very important field in language learning. When we think of the learners of English or another language, we cannot say that there is a one-size-fits-all method for vocabulary teaching. In language learning, each student is accepted unique and teachers are trying to find the most useful and up-to-date strategy to teach vocabulary. However, vocabulary teaching is mostly considered as the list of words to be memorized in Turkey. Students are asked to copy these lists of words to their notebooks. But when there is no context, it turns out to be nothing but memorization. (Anadol, 2015). In this respect, teaching techniques which are suitable for the needs of students would be evaluated.

Thanks to the technological developments, teachers have many options which can be used during the lessons. Implementing technology to the lessons has been a new phenomenon among educators. Also, Web 2.0. tools became very popular in Turkey after the Coronavirus Pandemic. Educators started using them during distant education. As teachers realized they are easy to use and attracted students to the lesson, they started sharing their experiences with other teachers. Most of the classrooms have smartboards and have internet access. There are a few

popular web-based applications such as Kahoot! Quizizz and Mentimeter. These applications used mainly for educational purposes. Through Kahoot! teachers can create online quizzes and students can access to quizzes their smartphones, tablets or computers (The Kahoot! Guide, 2016). And through these quizzes, vocabulary can be taught easily to the students. Papastergiou (2009) found that students rated games as more appealing and more valuable as an educational tool compared to other performance-tracking educational websites that contained the same content.

1.3. Purposes of the Study

This study aims to investigate the effectiveness of Kahoot! for 7th grade students at secondary school level in Turkey in terms of learning new vocabulary and the retention of new vocabulary after 4 weeks. Also, this study aims to decide whether web-based teaching application Kahoot! is effective in vocabulary learning of 7th grade students or not.

Kahoot! has been chosen as a tool as it offers a number of significant advantages both for the teachers and the students. Nguyen and Yukawa (2019) found that Kahoot! has a positive effect on English language learning.

Licorish in his study suggests that:

The gamification (“game-show”) process of Kahoot! does not change, which may increase teachers’ concerns over student boredom. However, unlike other computer-mediated learning tools and games, the questions and problem-solving strategies vary with each Kahoot! usage based on the students’ needs. Furthermore, Kahoot!s only last for a short duration. Kahoot! draws from Malone’s (1980) “theory of intrinsic motivation” by challenging students with difficult problem-solving tasks in an audio-visually stimulating environment. The fantasy “game-show” environment further increases their absorption during problem-solving compared to other computer-mediated learning tools. (as cited in Licorish, 2018, p.4)

At the end of the study, semi- structured interview questions will be asked to gather students’ views related to Kahoot! and make inferences from their experiences in terms of vocabulary learning.

Kahoot! not only targets users’ needs for challenge and fantasy, but also promotes students’ sensory curiosity through surface-level gamification features (e.g. suspenseful music and colour displays), and their cognitive curiosity through the problem-solving process and real-time feedback. (Licorish, 2018, p.5)

1.4. Significance of the study

Recently, many public and private schools, language courses and tutors prefer and try to have their lessons via distant education also known as online or remote learning. Distance education has been more popular since the Covid-19 Pandemic for several reasons as it offered cost-saving benefits, it helps us to use the time more effectively and lastly the students do not have to go somewhere like a school or an institution, they can take part in the lesson by just one click. Also, distance education allowed students to study at their own pace and on their own schedule. After the pandemic, it has been understood that we sometimes need to benefit from distance education as teachers. This situation has shown that some of the games and gamification tools can be used in the class in order to make the lesson more enjoyable and attractive for the students. This study is aiming to contribute to the teachers in the field who are in search of recent methods for teaching vocabulary and this is the main significance of the study.

This study aims to investigate and explore the effectiveness of using Kahoot! as a web-based tool of learning as compared with the traditional teaching method in enhancing students' vocabulary knowledge. The result of this study would provide an insight to secondary school EFL students, teachers, and textbooks designers and the practitioners in the field of English language learning and teaching.

As for the EFL students, the results of the study can help them to get direct exposure to many vocabularies of various classes and be familiar with their meanings and usages. Adding to that, the use of Kahoot! as a tool of learning English vocabularies is new and attractive to EFL students. Thus, it can encourage them, motivate them, and immerse them in a creative learning environment. It can also help EFL students to continue their learning outside the time and place of the traditional classroom.

As for English language teachers, the use of Kahoot! can help them be in direct contact with his/her students without any restrictions. It can also help the English language teachers create language learning activities and discussion activities among the students and help them learn by themselves autonomously. Autonomous learning can be supported by the use of Kahoot!.

With reference to the significance of this study, the results of the study can provide textbook designers and practitioners with useful theoretical and practical pedagogical evidences and recommendations for the effectiveness of utilizing Kahoot! in improving the EFL students' vocabulary knowledge. Consequently, these pedagogical evidences and recommendations can

help improve students' English proficiency level, in general and enrich EFL students' vocabulary knowledge, in particular.

1.5. Research Questions

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

RQ1. How effective is Kahoot! when compared to traditional methods for vocabulary learning?

RQ2. How does the use of Kahoot! in vocabulary teaching in EFL influence vocabulary retention?

RQ3. What is the potential impact of Kahoot! on the long-term retention of vocabulary items?

RQ4. What are the students' opinions on Kahoot! and vocabulary learning?

1.6. Assumptions

1. The researcher selected 24 words as target words for the research, These 24 words were selected from the two units of the course book (Ortaokul ve İmam Hatip Ortaokulu İngilizce Ders Kitabı, 7. Sınıf) of 7th grade students. According to the syllabus, these items are assumed to be appropriate for the proficiency level of the students.

2. All participants taking part in the research are presumed to have similar knowledge of words and level. For this reason, all classes selected for this study is 7th graders.

3. All participants from three classes were assumed to take part in the research willingly to improve their vocabulary. As, secondary school students are sensitive about attendance, a few students are assumed to be absent during the classes and an attendance sheet will be delivered before the lessons.

4. The weekly time period for each practice which was 20-30 minutes is assumed to be enough to practice the target 8 words in each session by using the printed vocabulary materials prepared in the control group.

5. 20-30 minutes are supposed to be sufficient to practice the target 8 words in each session by using the exercises on Kahoot! for the participants in the experiment group.

6. The introduction session to make the participants familiar with the application is assumed to be sufficient for them.

7. The participants are assumed to participate in the pretest, posttest and the delayed posttest willingly and to show their real knowledge of the words in these tests.

8. The participants are assumed to take part in the semi-structured interview willingly to share their ideas regarding using Kahoot! during the research.

1.7. Definitions

Digital Game-Based Learning: DGBL as the fact of blending course content with digital games to make teaching and learning more effective for digital learners.

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

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).

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

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

Posttest: 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 posttest.

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

Voscreen: VoScreen is a web and mobile application utilized in foreign language education (Taylan, 2018).

CHAPTER 2

LITERATURE REVIEW

2.1. Vocabulary

The meaning of vocabulary is “a list or collection of words or of words and phrases usually alphabetically arranged and explained or defined.” (Merriam-Webster Dictionary, 2021, www.merriam-webster.com/dictionary/vocabulary). Besides this definition, vocabulary is in the centre of English language teaching. Students may have a hard time in expressing themselves, conveying a message or understanding others, if they do not have sufficient amount of vocabulary. The size of students’ vocabularies during the education they get throughout the year affect their reading and speaking skills and also their success in school subjects. Here are the findings over 100 years that show the importance of vocabulary in language learning:

- Vocabulary knowledge is one of the best indicators of verbal ability (Sternberg, 1987; Terman, 1916).
- Vocabulary knowledge contributes to young children’s phonological awareness, which in turn contributes to their word recognition (Goswami, 2001; Nagy, 2005).
- Vocabulary knowledge in kindergarten and 1st grade is a significant predictor of reading comprehension in the middle and secondary grades (Cunningham & Stanovich, 1997; Scarborough, 1998).
- Vocabulary difficulty strongly influences the readability of text (Chall & Dale, 1995; Fitzgerald, Ellmore, Relyea-Kim, Hiebert, & Stenner, in press.).
- Teaching vocabulary can improve reading comprehension for both native English speakers (Beck, Perfetti, & Mc Keown, 1982) and English learners (Carlo et al., 2004).
- Growing up in poverty can seriously restrict the vocabulary children learn before beginning school and make attaining an adequate vocabulary a challenging task (Fernald et. al., 2013; Hart & Risley, 1995).
- Disadvantaged students are likely to have substantially smaller vocabularies than their more advantaged classmates (Templin, 1957; White et al., 1990).
- Learning English vocabulary is one of the most crucial tasks for English learners (August, Carlo, Dressler, & Snow, 2005; Nation, 2014b).
- Lack of vocabulary can be a crucial factor underlying the school failure of disadvantaged students (Becker, 1977; Bergland, 2014).

(as cited in Graves, 2016, p.12)

2.1.1. Learning Vocabulary: Kamil and Hiebert suggests that “A clear perspective on vocabulary learning is useful. But without a similarly explicit perspective on meaningful instruction, students’ learning in school will not be optimal.” Thanks to the report of the National Reading Panel (NICHD, 2000), teachers can benefit from the explicit perspectives on the components of effective vocabulary teaching methods which in turn help the students learn the vocabulary they should learn throughout the school year (Kamil & Hiebert, 2005, page 6). However, in the early 1970s, the vocabulary was neglected in the literature of English language teaching and learning. Yet, it has been claimed that “native speakers can better understand ungrammatical utterances with accurate grammar and inaccurate vocabulary” (Widdowson,1978, in Boyd Zimmerman,1997, p.13). This neglect has disappeared as the learners themselves started to place the significance on vocabulary (Oxford, 2000). Ellis (1995) suggested that this neglect was not changed totally. But today, many studies show that vocabulary learning is the integral part of comprehension of a text, the National Reading Panel is also describing vocabulary as one of two aspects of comprehension instruction, the other one is comprehension strategy instruction.

Another helpful further emphasis would be on intentionally looking at fundamentals of vocabulary learning, such as the importance of quality of processing and spaced repetition, cost/benefit analysis regarding word frequency and subject matter relevance, and ensuring a balance of chances for meeting the very same vocabulary. Such principles apply not only to vocabulary learning but also to subject matter learning and thus represent a very useful contribution to an academic purposes course (Szudarski and Barclay, 2022).

Oxford (2000) defines some strategies for learners of vocabulary, first one guessing the meaning of a word helps retention, second strategy is that if the meaning of a new word occurred in conditions that require more careful analysis and decision making, the retention of that word would be better. For the retention to take place, there should be some emotional and mental energy. That is why, teachers and learners find themselves in continuous effort to find effective strategies for themselves. It will be very helpful for the teacher to be aware of all kinds of methods used by learners to handle with words, to encourage learners in effective strategies, and to introduce some of these through teaching. (p 118.) To embody retention of a new word, Clifford (1978) investigates Edward Thorndike’s research on vocabulary. In this study, Clifford used symbols and created a family tree. But in this was not a typical family tree where family members exist. It was consisted of outstanding students in first language vocabulary research who successively were their students. The excellence of his supervision and the success of their

students have explicitly had a lasting effect on applied linguistics and vocabulary studies (Szudarski and Barclay, 2022).

According to Thornbury (2002) young learners usually use labelling as they first begin to learn to speak than categorizing skills. He added young learners bring about a network building in which they set up complex ideas. During this process, they realize that there are some other words such as synonyms, antonyms and others.

On understanding the importance of vocabulary knowledge and immediate access to and retrieval of this knowledge for fluent FL use, teacher and FL learners appear to face an enormous and intimidating task. A language contains many tens of thousands of words, far too many to teach and learn by a method of direct teaching. Moreover, for each word, ultimately seven types of information have to be learned: phonological and orthographic, syntactic, morphological, pragmatic, articulatory, idiomatic, and semantic information (Shreuder, 1987).

Table 1

Summary of National Reading Panel's Specific Conclusions about Vocabulary Instruction

-
1. There is a direct need for direct instruction of vocabulary items required for a specific text.
 2. Repetition and multiple exposure to vocabulary items are important. Students should be given items that will be likely to appear in many contexts.
 3. Learning in rich contexts is valuable for vocabulary learning. Vocabulary words should be those that the learner will find useful in many contexts. When vocabulary items are derived from content learning materials, the learner will be better equipped to deal with specific reading matter in content areas.
 4. Vocabulary tasks should be restructured as necessary. It is important be certain that students fully understand what is asked of them in the context of reading, rather than focusing only on the words to be learned. Restructuring seems to be most effective for low-achieving or at-risk students.
 5. Vocabulary learning is effective when it entails active engagement in learning tasks.
 6. Computer technology can be used effectively to help teach vocabulary.
 7. Vocabulary can be acquired through incidental learning. Much of a student's vocabulary will have to be learned in the course of doing things other than explicit vocabulary learning. Repetition, richness of context, and motivation may also add to the efficacy of incidental learning of vocabulary.

8. Dependence on a single vocabulary instruction method will not result in optimal learning. A variety of methods was used effectively with emphasis on multimedia aspects of learning, richness of context in which words are to be learned, and the number of exposures to words that learners receive.

Note. From National Reading Panel (2000), p. 4

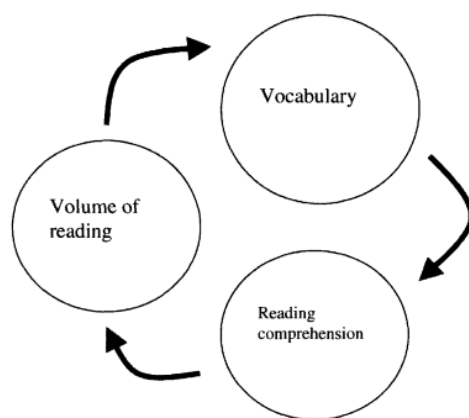
According to Oxford (2000), there are many factors appear to play a role in vocabulary development, some factors are about input, in other words how it is presented to the students, for instance through teacher presentation, reading words in paragraphs, learning words during peer exchange, or through self-access work of some kind.

Other factors are to do with storing, organizing, and building vocabulary in the mental lexicon and being able to retrieve or recall it when it is needed.” (p.118) One of the biggest reason for learning new vocabulary is to understand what you are reading, in short, comprehension. Nagy and Scott (2005) says there are many benefits of having a large vocabulary but none of them is more valuable than the positive contribution that vocabulary size makes to reading comprehension.

Likewise, Anderson and Freebody (1981) add that vocabulary knowledge is correlated with reading comprehension, with the correlations tending to be around .6 to .7. However, the existence of a correlation does not tell us anything specific about the nature, or the direction, of the causal relationships that may underlie it. Hence, the amount of reading a person does plays an important role in the reciprocal relationship between vocabulary knowledge and reading comprehension (see Fig. 7).

Figure 7

A reciprocal model of vocabulary and reading comprehension.



2.1.2. Teaching vocabulary: In the past, vocabulary was not regarded as important as grammar in EFL, yet with popularity of communicative approach in EFL, it gained great importance. Vocabulary knowledge is not something that can be totally learnt by the students, learning sufficient vocabulary is a process and it is something that accumulates over the course of a lifetime. Vocabulary instruction is not just looking up words in a dictionary and using the words in a sentence. Teachers are constantly searching for the best ways to teach the vocabulary in the coursebook. The National Reading Panel (2000) concluded that there is not a single research-based technique for teaching vocabulary. According to Schmitt & McCarthy (1997), good vocabulary instruction mainly focuses on significant words that help students comprehend the text, use words that students encounter frequently, and harder words like idiomatic words; words with more than one meaning.

According to National Reading Panel (2000), there are various methods for teachers which need to be prepared before the lessons. One of them is – the keyword method – in which illustrations and words are used to highlight the important features of meaning. In this method, students are supported by teachers while visualizing and drawing pictures. Despite the extended and consistent research held by researchers about this method, teachers see the preparation part as a burden. Therefore, it is not very surprising that this technique is not used widely in classrooms (Hiebert and Kamil, 2005).

Recently, technology is used to contribute to the ways of teaching and learning vocabulary and correspondingly teachers are beginning to understand the importance of the use of technology in language classrooms. Mobile phones or tablets are now mostly used in many countries, especially for language learning and teaching purposes. The mobile phones help students learn more easily and quickly to enhance their language comprehension skills. Moreover, an important development in pedagogical methods was brought about by integrating smartphone apps and games with the curriculum and this allowed students to learn freely in time, space and motivation on an individual basis (Ishaq, Mat , Rosdi , Jehanghir , Ishaq S & Abid , 2019).

Sandberg, Maris & Geus (2011) also states that:

At present times, learning is no longer confined to a particular period in life (from four to mid-twenty) nor solely in the hands of formal educational institutes. It is widely acknowledged that children do learn not only at school, but informally out of school as well. Their informal experiences outside the classroom may offer just as meaningful learning opportunities as the structured learning environment established within schools. The availability of digital learning material allows learners access to relevant

content inside as well as outside the classroom. When they access such content through a portable device, the flexibility extends beyond that of the home computer. The learner is no longer restricted to learn at fixed locations. (p. 1334)

2.1.3. The Use of Technology in Vocabulary Teaching: In one of the earliest studies about the use of technology in the classroom, Cuban (1986) says that teachers in the USA used silent commercial films that started to appear in American culture in the late 1890's and early 1900's. Later, in 1910, George Kleine prepared a 336-page Catalogue of Educational Motion Pictures. Teachers were able to rent these films. Thomas Edison was the early owner of rental film library before these developments.

Using films for teaching vocabulary is still one of the most popular ways for teachers. For instance, Voscreen is a highly innovative way to help learners improve their English language skills on their own, without the express need for outside instruction. It is a language learning platform that focused on improving listening comprehension skills through short video clips. The platform offers a wide range of videos featuring native speakers in various real-life situations, such as interviews, conversations and everyday interactions. (Taylan, 2018). Needless to say, it helps students to develop their skills on their own or with the help of their teacher.

The use of dictionaries, on the other hand, has begun to decrease as there are many studies which show the importance of online glossing, that “provides fast and easy access to the meanings of unknown words.” (Chun, 2006, p. 70) Students can find the definition of a word with just one click.

Along with the developments in technology, the amount of information and communication Technologies (ICT) that implemented in the teaching environments to help the students who are called digital natives has expanded dramatically. Thanks to this development in ICT, students and teachers can discover new ways to practice language inside and outside of the classroom. Integrating technology in language teaching has become unavoidable to help learners to maintain their academic motivation. (Kıyanççek & Uzun, 2022).

In Covid-19 Pandemic period, it was important to develop digital teaching tools and the use of technology increased tremendously. As a result of the changes in the digital world and learning environments with the coronavirus pandemic, differences have emerged in education and its practices (Kırmızıgül, 2020). Teachers tried to make the lesson attractive, efficient and effective, as well. Computer Assisted Language Learning (CALL) and Mobile Assisted Language Learning (MALL) have been quite popular among teachers.

Distance teaching also increased the importance of Web 2.0 tools. One of the materials that can be designed from web 2.0 tools are digital stories, which are thought to have an important place in science teaching. A digital story is a form of storytelling that utilizes digital tools and technology to create and present narratives. Sepp & Bandi-Rao (2015) reported in their study that Digital storytelling is a viable tool for English Language students. It is technically accessible, and students enjoy it. Students who participated in the study were engaged and gained confidence in their communicative skills by the end of the project. They have become increasingly popular due to their ability to capture and hold the students' attention effectively, combining visual and auditory elements to convey compelling narratives.

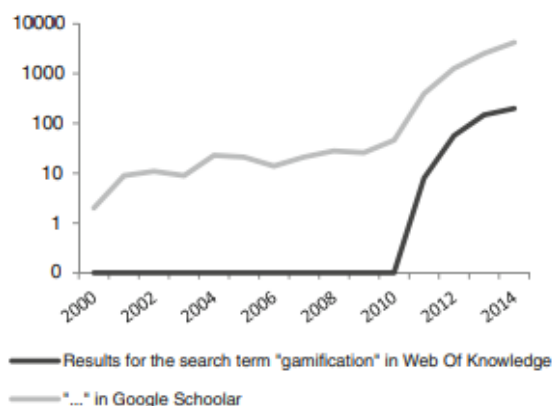
2.1.4. Gamification in Vocabulary Teaching: Gamification has been a popular term in the past few years. Even so, it is not a new concept, having roots in marketing endeavors, such as points cards and rewards member-ships, educational structures, most notably scholastic levels, grades and degrees, and workplace productivity (Nelson, 2012). Gamification can be defined as the sub-branch of technology in educational environment. Caponetto, I.; Earp, J.; Ott, M. (2014) defines the term gamification as it is generally used to denote the application of game mechanisms in non-gaming environments with the target of enhancing the processes enacted and the experience of those involved. Gamification can also be described as the integration of game mechanics. Many researchers have focused their attention to define gamification. To define gamification, game-based learning should also be defined. Game-based learning (GBL) usually refers to the use of digital games called serious games, digital learning, or educational games. It can be said that Game-based learning and gamification have common points as they meet similar needs of students in educational settings. However, non-digital games are also widely used for educational purposes.

The popularity of gamification in education has been increasing by means of the technological developments enabling more digitized learning settings as well as use of technical possibilities developed in relation to video games to create immersive and engaging learning experiences (Majuri, 2018).

Through games, learners can interact, discover and have fun with their classmates. Lewis (1999) argues that the games are popular among children as they like playing games. Using games not only increases students' motivation level, but also reveals a need for using the language. To be able to use the language properly, students need to learn new vocabulary. There are various games used by teachers to teach vocabulary these days.

Figure 8

Published articles per year according to databases.



As it can clearly be understood from the graphic above, the search of gamification has increased drastically since 2010 which also shows that it is a popular and recent method. Like all other methods, it has some positive and negative sides. Positive sides of this learning method are listed by Lee and Hammer (2011) as follows: engaging and motivating students, providing teachers various tools both while teaching and rewarding their students and encourage learners to reach their full potential during learning. However, if this technique is not used according to what it requires, it will eventually result in negative effects. First of all, students may get used to learn only when there is an external prize. Despite the implementation of gamification to education changes the traditional education style and make learning more entertaining and interesting, it is important for teachers to balance the success and failure because students may become demotivated when they cannot reach the prizes in the end. So, while implementing gamification method to education, teachers need to ensure that they reach all the students.

One of the gamification tools which is the object of this research, involving digital devices such as handphones and tablets is “Kahoot!”. According to Dellos (2015), Kahoot! is a student response system that engages students through game-like pre-made or impromptu quizzes, discussions and surveys. Kahoot! was founded in 2012 by Morten Versvik, Johan Brand, and Jamie Brooker who, in a joint project with the Norwegian University of Technology and Science (NTNU), teamed up with Professor Alf Inge Wang, and were later joined by Norwegian entrepreneur Åsmund Furuseth and now can publicly be accessed at <https://getKahoot!.com>. Kahoot! is a platform that allows anyone, in this case, is a teacher, to show questions to class, then let students respond from a selection of answers electronically on their own devices in real-time.

Kahoot! also got a positive review and is proved more engaging and motivating students in learning English as Foreign Language. The study stated that although technical and networking problems did hinder usage of Kahoot! but this platform still had definite views and attitudes for both teachers and learners of English as Foreign Language (EFL). It provides efficiencies in making daily routines like checking and grading homework quicker and more accessible, which in turn helped teachers restructure their time to focus more on instructional planning and delivery while students are enjoying the experience of the fun learning process.

Kahoot is an online learning platform and the features are as the following:

Teachers can create fun learning games in minutes – these games are called ‘kahoots’. The format and number of questions is up to the teacher. One can add videos, images and diagrams to the questions to amplify engagement. Kahoots are best played in a group setting. To join a game, students need a unique PIN. If the teacher is the game host, he/she needs a big screen. Players answer on their own devices, while questions are displayed on a shared screen. In addition to live games, teachers can also send kahoot challenges that students complete at their own pace – for example, for homework or remote training. After a game, teachers may encourage their students to create and share their own kahoots! and this increases creativity of students. (<https://kahoot.com/what-is-kahoot/>, 2023)

Chen (2017) stated that Kahoot fostered wider and active student participation, and yet provided students with the opportunity to retain their most desirable personal choice of participation. In short, Kahoot game can be an alternative solution to have a class engagement become more fun to learn English vocabulary.

2.2. Mobile- Assisted Language Learning (MALL)

Mobile phones have transformed into an important component in the world especially in the field of language teaching, therefore there is need to think of using this technology in language learning activity. The increasing use of mobile technology has attracted the attention of researchers and made way for emerging the field of (MALL) and (M-Learning) to support the process of language learning. Pachler, Bachmair and Cook (2010, p. 6) defined MALL as “the processes of coming to know and being able to operate successfully in, and across, new and ever-changing contexts and learning spaces with an emphasis on understanding and knowing how to utilize our everyday life-worlds as learning spaces. According to Miangah and Nezarat (2012, p. 309) “Mobile-Assisted Language Learning (MALL) deals with the use of mobile technology in language learning. In contrast to classroom learning, in MALL there is

no need for the learners to sit in a classroom or at a computer to get learning materials. In fact, MALL can be considered an ideal solution to language learning barriers in terms of time and place.”

Mobile Assisted Language Learning (MALL) considers as approach in which mobile is used to support and enhance learning of languages. Kahoot! is a Mobile Assisted Language Learning application usually used by language teachers and also other lessons. As for learning and learning languages, Naismith, Sharples, Vavoula, and Lonsdale (2004) highlighted how the mobile technologies can have a great impact on learning. Learning will move more and more outside of the classroom and into the learner’s environments, both real and virtual. Learning will involve making rich connections within these environments to both resources and to other people. In addition to consulting internet-based resources on the move, learners will be able to manage the administration of their learning through consultations with their personal diaries and institution-based virtual learning environments.

Klopfer, Squire, and Jenkins (2002) discussed five unique educational attributes of mobile devices which could reflect the use of Mobile-assisted Language Learning (MALL) which are;

- Portability: the mobile devices allow movability
- Social interactivity: the mobile devices facilitate and enhance the communication between users
- Context sensitivity: the mobile devices provide real data in learners’ location, environment and time
- Connectivity: the devices can be connected to each other or a shared network
- Individually: the devices allow individual learning.

As for the future of Mobile Assisted Language Learning (MALL), according to AbuSa’alek, teachers and technology developers of the future have challenges as they need to find ways to be sure that this new learning is highly situated, personal, collaborative and long-term; in other words, truly learner-centered learning.

Mobile-assisted language learning (MALL) has recently gained significant importance as an approach that enriches a learner’s experience through the use of mobile devices, such as smart phones and tablet computers. By reflecting on available work on MALL is quite helpful for language teachers who are willing to start app development projects. Most researchers believe that the potential impact MALL can have on second language learning is significant (Lee, 2011). For instance, the New Media Consortium’s 2013 Horizon Report defines tablets

and mobile apps as highly valuable near-term tools for learning inside and outside the classroom.

2.3. The Use of Kahoot! in Vocabulary Teaching and Related Studies

Kahoot was listed by Kapuler (2015) as one of the top 100 popular online applications to implement in the lessons by educators. In this list of applications rated for their effectiveness and usefulness for teaching and/or testing students in the classroom, Kahoot was at number 36 (2015). This information is enough to say that Kahoot may be an effective application for teaching vocabulary and vocabulary acquisition and retention.

Although the platform was first released in 2013, many studies have been published on the effect of gamifying vocabulary learning and using Kahoot! in the classroom. When Kahoot! was launched, it distinguished itself from the rest of SRSs as it had a strong focus on being a game-based platform, and thus can be classified as a Game-based Student Response System (GSRS) (Wang, 2015). There is also much evidence for its effectiveness and usefulness as a tool to teach content vocabulary. These studies are many other studies showing the effectiveness of using these apps to teach content vocabulary. (Huang, 2015; Hung, 2015; Wolsey, Smetana, & Grisham, 2015; Dalton & Grisham, 2011; Walsh, 2014). In their study, Yip and Kwan (2006) found that implementing video games into the lessons could make students capture their attention better than the traditional methods. As a result, this may open a road for a better vocabulary acquisition when the online games are used for vocabulary instruction. In addition, according to Putri (2019), English teachers try to be able to use media technology in ELT classes to raise student motivation, integrated language skills and an independent learning environment for students. They can also improve their 4C skills (critical thinking, creativity, communication and collaboration). Budiati (2017) points out that after using Kahoot in the teaching and learning process, students are very interested in taking part in the activities, they are more willing to join the lessons, they are more attentive in the world of English, they are interested in learning more about what they have learned and convey to others what they have learned using Kahoot in the classroom. Kahoot!'s success is based on its way of asking questions, like the TV-game Who wants to be millionaire? There are questions with different possible answers that should be answered in a certain time. This aspect, combined with a nice and colouring interface and the constant update of the participant ranking with fun messages, has contributed to its use in class. Students need an electronic device with Internet access to participate (Zhang & Yu, 2021). Researchers have recently analysed the advantages of its use in class as this tool improves student participation and performance, among other aspects (Bicen

& Kocakoyun, 2018; Dolezal, Posekany, Motschnig & Pucher, 2018; Kay & LeSage, 2009; Plump & LaRosa, 2017; Wang & Lieberoth, 2016).

As a result, implementing Kahoot in the classrooms shows that the use of educational games in the classroom is likely to decrease the possibility of disruption, thereby increasing the quality of teaching and learning beyond what is provided in traditional classrooms with traditional teaching methods. In the literature, Kahoot! is considered to be a distant learning application whereas it is now being used in classrooms as a fun tool to make vocabulary learning permanent. Teachers first came across with that application during online teaching and realized that these tools are creating a fun atmosphere during their lessons. When online education came to an end, teachers went on implement these tools in their lessons and students had a lot of fun because they liked the competitive side of Kahoot!. The significance of this research is to help language teachers, to prove the effectiveness and to make teachers understand the importance of using these kinds of applications and give advices about how to implement these tools in their lessons.

CHAPTER 3

METHODOLOGY

The main aim of this study is to investigate the effects of using Kahoot! as a digital tool on enhancing English vocabulary of secondary school students' learning English as a foreign language during the spring semester of 2022-2023 Academic Year. This study is significant in the sense that it intends to acknowledge students' views on vocabulary learning by the use of Kahoot! and carries significance as it attempts to prove the efficacy of this tool. This thesis is designed to investigate the effects of using Kahoot! by comparing the scores of the participants of Kahoot! group with those of the participants in the control group who were taught with traditional methods through the use of pretest, posttest and delayed posttest. That is to say, the students in the experiment group are planned to learn the vocabulary exercises on Kahoot!, the ones in the control group will do a pen and paper vocabulary exercise as in the traditional methods.

This study used a mixed-method design implementing both quantitative and qualitative data as it helps researchers conceptually and analytically to combine qualitative research and qualitative data with traditional epidemiological and quantitative methods of research to make translation easier (Johns Hopkins, Bloomberg School of Public Health).

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

3.1. Research Design & Procedure

Initially, the researcher applied to Uludağ University Research Ethics Committee for getting an official approval for the research. The committee considered the research proposal acceptable and approved it. After getting the approval, the consent forms were distributed to all participants in three classes in order to inform them about the research. The research took a step after the collection of the consent forms which were signed by the participants. Before the teaching practice process, target words were chosen from the related units of the book. These words were chosen carefully focusing on the variety of the types of words. 24 target words that were chosen from the list at the end of the book are as follows: prepare, attend, beverages, decorate, fancy, guests, order, invitation card, invite, organize, refuse, wrap, believe, career, dream, excellent, guess, imagine, make a guess, peaceful, prediction, probably, receive and trick. Later, pretests, post-tests and delayed post tests were prepared and proofread by a colleague and the supervisor. All the questions were multiple choice questions having four

options and 6 of the questions were very difficult, 6 of them were difficult, 6 of them were normal and 6 of them were easy. Here is one example question from the pretest:

Q22 : I think the world will be a more - - - - - place if we love and show respect to each other.

- A) peaceful B) prediction C) boring D) informative

The answer “peaceful” was chosen by the teacher because it was also listed as an important adjective at the end of the unit. While choosing the target words, the researcher tried to pick important and the most useful vocabulary out of two units.

Another example from pretest :

Q4 : We should - - - - - this room with a “Happy Birthday” banner.

- A) organize B) decorate C) refuse D) presents

This question’s answer is decorate and this word occurred repeatedly in the unit.

A pilot pretest was conducted in one independent class in order to determine the exact 24 target words from selected units. The pilot showed that the chosen words are unknown to the students in that level. The materials to be used in each class were prepared and proofread. Great attention was paid to the preparation of the teaching materials which would be used in both experimental and control groups (see Appendix 1 for the teaching material). The teacher, a colleague and the supervisor have collaborated in the teaching materials preparation process.

Kahoot! was introduced to the students with details and an example test was applied to practice the application. The participants did not have to create an account because they can connect and get engaged in the activity by entering a game code given by the teacher.

All stages of the research including the practice sessions done in each group for four weeks, the pretest, the posttest which was conducted after the practice period, and the delayed posttest which was applied four weeks after post-test and finally the interview with the participants who used Kahoot! during the research are briefly indicated below (see Table 2).

Table 2

Procedure

	Experimental Group	Control Group
Week 1	<ul style="list-style-type: none"> ✓ The students were informed about the study and signed the consent form showing that they were voluntary to participate in the study. ✓ The pretest was conducted in all groups. 	

	-1 st teaching practice on Kahoot! -teaching chosen vocabulary	-1 st teaching practice with printed worksheets. -teaching chosen vocabulary
	6 target words / 20 - 30 minutes	
Week 2	-2 nd teaching practice on Kahoot! -teaching chosen vocabulary	-2 nd teaching practice with printed worksheets. -teaching chosen vocabulary
	6 target words / 20 - 30 minutes	
Week 3	-3 rd teaching practice on Kahoot! -teaching chosen vocabulary	3 rd teaching practice with printed worksheets. teaching chosen vocabulary
	6 target words / 20 - 30 minutes	
Week 4	-4 th teaching practice on Kahoot! -teaching chosen vocabulary	-4 th teaching practice with printed worksheets -teaching chosen vocabulary
	6 target words / 20 - 30 minutes	
Week 5	The posttest was applied to all groups.	
Week 9	The delayed posttest was conducted in all groups.	
Week 10	The semi-structured interview was carried out with 10 students from the experiment group who used Kahoot! in the study.	

As it is shown in Table 1, the posttest was applied to all of the three groups one week after the teaching practices ended. In order to evaluate the sustainability of the students' understanding of the target vocabulary and to assess the quality of change in their vocabulary knowledge, 4 weeks after the posttest, the delayed posttest was applied. In pretest, posttest and delayed posttest, the same questions were asked but the place of the questions were different. Students did not write their names on the tests as they took their pretests before the teaching practice of the new units and could feel anxious because they knew nothing about the upcoming new units.

3.2. Participants

The participants of this research were chosen through convenient sampling so the researcher could reach them easily. In other words, the researcher benefited from available students in her classrooms. This method is fast and inexpensive (Berg, 2001). In the beginning of the study, the number of participants that will take part in this research was planned to be 107 students from 7th grades studying in three different classes at a secondary school in Beşiktaş, where the researcher is working as an English teacher. However, some of the students could not attend all lessons due to some health problems such as Influenza and Covid. The study was planned to be done by 107 students but because of the absent students who could not take part in any of the practice lessons applied to the class for four weeks, the researcher had to exclude them from the study.

As a result, the number of students who took part in all four practice lessons and who took all the tests was between 22 and 24 in each class. To be able to keep all three groups equal in number, the data gathered from 20 participants from each class was taken into consideration, which made the number of participants 60 in total. For the generalizability and the validity of the study, stratified sampling was preferred. This was made to ensure that every characteristic is properly represented in the sample. The groups were classified into three main sub-groups depending on their achievements in the post-tests and one participant from each sub-group was taken out.

All participants in this research were 7th grade students at the age of 12 and 13. Also, all of the participants took a preparatory class education when they were 5th graders. Yet, the education was distant when they were at preparatory class. Students nearly had a similar background knowledge. Lastly, the researcher had been teaching in all of these three classes as a main course teacher since the beginning of the semester. After being informed about the research briefly by the researcher, all students agreed to participate in the research.

In this research, there were three different classes participating in the research under different conditions. Experiment groups used Kahoot! to learn target words from the related units for four weeks of practice and the other group which was the control group used traditional methods using printed exercises of the same vocabulary practice. In short, target words for each week were the same in all of the classes, yet experiment groups learnt them by means of Kahoot! while the control group studied those words using printed worksheets.

Table 3*Participants*

Groups	The number of participants	Instrument
Experiment Group	40	Kahoot!
Control Group	20	Printed worksheets

3.3. Instruments

3.3.1. The Choice of Target Words: At the beginning of this research, the researcher selected the most common words especially appearing in many competitive examinations or high school entrance examination called LGS in Turkey. The researcher picked up these words for this study because according to Marlow, “Learning should not be for its own sake but rather be for personal use and application in society.” (p.3). Important vocabulary terms should be acquired by students. For finding these terms, the researcher benefitted from a list of all vocabulary terms from the units at the end of the book. The researcher first looked at all the words, then selected 12 of them for each unit. Total number of the target words was 24. English teachers working at the same school were also asked about these target words. The teaching practice period of the study lasted for four weeks and six target words were taught each week.

After deciding on these 24 words, a pilot pretest was conducted to 30 students from an independent class who are studying at 7th grade in the same school. They were all informed about the study. Piloting was conducted to identify potential problems and faults in the instruments.

3.3.2. Teaching Materials: Lesson plans, presentations and teaching materials were prepared by the researcher to teach the six selected target words each week. A colleague and the supervisor were consulted during the preparation of the teaching materials and lesson plans. For the control group, a printed worksheet was prepared consisting of the questions in the Kahoot! game. For the experiment group, two games were created by the teacher. The students in experiment group played Kahoot! games while the control group were asked to answer printed worksheets.

Kahoot! allows the teacher to create his/her own teaching materials (tests for practice) according to the curriculum. For this study, teacher created two Kahoot! games for two units including 24 target words. The questions in the game were all multiple choice. Each option had a different colour and students clicked on the right colour. Quickness and clicking on the correct

option rank the students and, in the end, a virtual podium appears on the screen which motivates the students and make them feel successful. Three questions from Celebrations unit and an example of virtual podium are presented below.

Figure 9

A question from Celebrations Unit

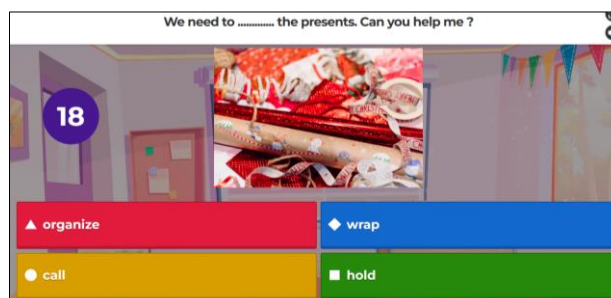


Figure 10

A question from Celebrations Unit

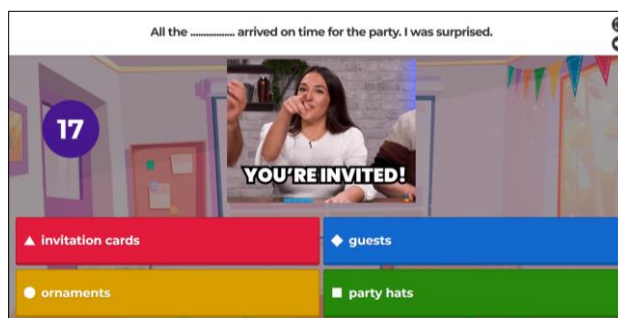
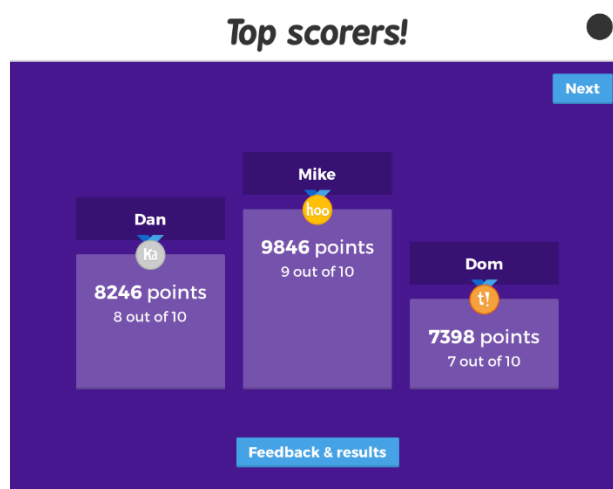


Figure 11

A question from Celebrations Unit



Figure 12*Virtual Podium*

While deciding on the exercises and preparing activities for each group, the researcher consulted one of the colleagues who is working in the same school for about five years and who is also regularly attending the conferences held by Ministry of Education. After all the materials were ready, two of the colleagues proofread them in order to read and mark corrections and also for checking grammar and sentence structure in the questions. The supervisor attended to the control and proofreading process of the exercises and activities.

3.3.3. Kahoot!: Kahoot! is a website that is mainly used to study vocabulary. The students need to have their own mobile phones or tablets to be able to play the games. While playing a Kahoot! game, the students will have a chance to receive immediate feedback directly related to their answer to know whether they have got an answer right or wrong. They will think upon their responses and try to understand why they were right or wrong. This will accordingly lead to a deeper understanding that helps the participation and retention of students' knowledge.

Kahoot! offers two different modes to its users. These modes are “Player vs Player” and “Team vs Team”. When presenting a live session, you can choose to present:

- Player vs Player: Classic - Each player competes for a top spot on the podium.
- Team vs Team: Shared devices - Each team huddles around one device.
- Kahoot Challenge Mode: gives a link to a Kahoot game that allows participants to answer questions on their own using their own device by showing all of the possible

answers on the students' phones or tablets. While this mode has been available for a while there have been two great additions to it recently.

For this study, the researcher told the students to select "Player vs Player" mode in order to assess individual learning. Kahoot Challenge mode was not used because it might cause a noisy and distracting classroom environment.

It is advantageous to use this tool during the lessons as it is quite practical and if there is an internet connection, the teacher can easily use it right after logging in. There is a virtual library and all the tests prepared by the teacher can be reached anytime, anywhere. Furthermore, it is really easy for the teacher to create vocabulary tests on Kahoot! Also there are tests prepared by other teachers for specific units and when the teacher has no time to prepare a test for the students, these tests can be used as well. It is free and easy to learn and utilize. Finally, Kahoot! can be utilized as an assessment tool in language classrooms. Instead of assessing learners through traditional paper and pen quizzes or tests, teachers can use Kahoot! to see the progress in learners.

This study followed mixed-method design implementing both qualitative and quantitative data. In order to collect quantitative data, a Kahoot! vocabulary test, including twelve questions for Celebrations unit and twelve questions for Dreams unit, was developed by the researcher. Twenty-four words from the two units of students' books were chosen and included to Kahoot! vocabulary practice questions with distractors. These twenty-four words were taught in four weeks' time, six in each week. At the end of the lesson in each week, Kahoot! vocabulary questions were used to practice the new vocabulary. On the other hand, the control group received printed worksheets of multiple-choice questions to practice the newly taught vocabulary. For reliability, the same questions were used in both experiment and control groups' practice activities. The Experiment group answered the questions in a Kahoot! test while the control group answered the same questions in a printed worksheet.

3.3.4. Pretests: The importance of the pretest is clear, because if students' pre-existing vocabulary knowledge is not assessed at the beginning, it is not possible to decide whether post-test knowledge is new acquisition, or simply knowledge that was in place before the research (Schmitt, 2010, p.179). Another advantage of pretests is that it is an effective way to determine the difference between the groups because it is important to find out any difference between the groups and determine that these groups are actually similar before the treatment (Schmitt, 2010, p.179).

In the pretest for this study, the students were asked to choose the correct option and find the appropriate target word for the blanks in the question (Appendix 3). The teacher mainly used daily English and prepared questions based on conversational goals. The researcher prepared the questions by selecting similar sentences from the book. Twenty-four target words were selected from the learners' coursebooks' 6th and 7th units. The units were about celebrations and dreams. The target words were *host, decorate, prepare, guests, invite, wrap, beverages, organize, refuse, fancy, invitation cards, attend* from 6th unit and *believe, career, probably, make a guess, dream, guess, excellent, trick, predict, peaceful, imagine* and *receive* from 7th unit. The pre-test consisted of 24 multiple choice questions. A target word was used for each of the multiple-choice question and different distracters were chosen. Both the experiment and control group received the same pretest.

3.3.5. Posttest: In the posttest, the participants took the same test including 24 target words, but the order of the questions were changed by the researcher (Appendix 4). The questions were all multiple choice as in the pretest and the students completed the posttest right after the period of four weeks of teaching practice. Both the experiment and control group received the same posttest.

3.3.6. Delayed Posttest / Retention Test: Most of the studies employ delayed posttests or retention tests to assess students' long-term vocabulary learning within a short period of time after the treatment. Schmitt (2010, pp. 155-156) asserts that because of the incremental nature of vocabulary learning, and its susceptibility to attrition, only delayed posttests can determine whether long-term retention has been achieved or not. In this study, the target words and the questions in the delayed posttest were the same with the previous posttest but put in a different order (Appendix 5). The delayed posttest aimed to assess the retention of the target words and what remained as a permanent word in students' vocabulary knowledge. Both the experiment and control group received the same delayed posttest.

3.3.7. Semi-Structured Interview: After all the tests were applied to both experiment and control groups, a semi-structured interview was conducted to get some information about the learners' opinions about Kahoot!. There were nine questions in the interview (see Appendix 6 for the initial interview questions). As it was a semi-structured interview, extra items might be added into the interview when it was needed. The interview questions were asked to ten students. In the literature, it is suggested to invite 10% of the participants for the interview and

in this study, the researcher picked 10 students from the experimental group randomly and they were all willing to participate in the interview. The interviews were all recorded within students' knowledge.

3.4. Data Analysis

The researcher followed a mixed method research design for the present study and due to its design, many data analysis means were used after all the data was gathered from the participants. For analysing the data, IBM SPSS 25.0 was used by the researcher. The pretest was implemented to the experimental group and the control group. After implementing the pretest, the researcher investigated whether there is a difference between groups in terms of the mean scores of the pretest. One-way ANOVA (One Way ANOVA) analysis was performed to compare the pre-test means of the control and experimental group. The homogeneity of variances, which is one of the assumptions of the ANOVA analysis, was tested with the Levene test.

The results of placements tests were initially calculated to see the homogeneity of the three groups. After parametric assumptions were tested firstly, placement test results were 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 20 participants; Shapiro-Wilk test was preferred by the researcher. Then, the findings of the pretest, the posttest, and the delayed posttest were analyzed by using Shapiro-Wilk normality test. Since the assumption of normal distribution could not be achieved in all groups, the Kruskal Wallis test, which is a non-parametric test, was used to compare the post-test scores.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

4.1. Presentation

In this part of the research, findings from the pretest, posttest and delayed posttest are submitted. Also, the comparisons between the groups are presented by using statistical analysis. The impacts of Kahoot! and traditional activities are evaluated. The results gained from the semi-structured interviews are demonstrated. In short, this part highlights both quantitative and qualitative data gathered from students. Research questions are answered in a detailed way.

4.2. Results

This study aimed to find answers to these questions:

RQ1. How effective is Kahoot! for vocabulary learning?

- Part A: How effective is Kahoot! when compared to traditional methods for vocabulary learning?
- Part B: How does the use of Kahoot! in vocabulary teaching in EFL influence vocabulary retention? How?

RQ2. What is the difference between the overall success of students learning vocabulary with Kahoot! and with traditional methods?

RQ3. How effective is Kahoot! to help the long-term retention of a new vocabulary item?

RQ4. What are the opinions of the students about Kahoot! and vocabulary learning?

4.3. Findings of Quantitative Data

4.3.1. Comparison of Placement Test Scores: Table 4.1 shows the descriptive statistics for the Placement Test Scores.

Table 4

Descriptive statistics on the placement test

	Group	n	Mean	Std. Deviation
	Control	20	89,8	11,93
Placement Test	Experimental	40	86,1	12,65
	Total	60	87,3	12,44

As shown in Table 4, the placement test mean of the control group was 89.8. The mean of the experimental group is 86.1.

Table 5 shows the results of the normality test regarding the placement test scores.

Table 5

Normality Test Result for the placement test

	Group	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Placement Test	Control	0,223	20	,010	0,825	20	0,002
	Experimental	0,185	40	,001	0,846	40	0,000

a. Lilliefors Significance Correction

As shown in Table 5, the placement test scores of the control and experimental group are not normally distributed ($p < 0.05$). Since the assumption of normal distribution could not be obtained for the experimental and control groups, the placement test scores of the groups were compared with the Mann Whitney U test, which is a non-parametric test. Table 6 shows the results of the Mann Whitney U test.

Table 6

Result of Mann Whitney U Test for the placement test

Test Statistics ^a	
	Placement Test
Mann-Whitney U	311,000
Wilcoxon W	1131,000
Z	-1,414
Asymp. Sig. (2-tailed)	0,158

a. Grouping Variable: Group

According to the Mann Whitney U test results shown in Table 3, the placement test scores do not show a statistically significant difference compared to the control and experimental group ($p > 0.05$). Therefore, it can be said that the experimental and control groups are equivalent to each other.

4.3.2. Comparison of Pretest Means: Table 7 shows the descriptive statistics regarding the pretest scores of the control and experimental groups.

Table 7*Descriptive statistics on pretest scores*

Group	n	Mean	Std. Deviation
Control	20	49,40	23,763
Experimental	40	48,55	22,704
Total	60	48,83	22,864

As shown in Table 8, there are 20 students in the control group. There are 40 students in the experimental group. The pretest mean of the control group was 49.4. The pretest average of the experimental group was 48.55.

Table 8 shows the results of the normality test for the pretest scores.

Table 8*Normality Test Result for pretest scores*

	Group	Kolmogorov-Smirnov^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Pretest	Control	0,164	20	0,167	0,946	20	0,311
	Experimental	0,120	40	0,153	0,943	40	0,044

a. Lilliefors Significance Correction

Since the number of people in the experimental group was more than 30, the Kolmogorov-Smirnov test result was checked for the experimental group. According to the Kolmogorov-Smirnov test result shown in Table 8, the pretest scores of the experimental group are normally distributed ($p > 0.05$). Since the number of people in the control group was less than 30, the Shapiro-Wilk test was used for the control group. According to the Shapiro-Wilk test results, the pretest scores of the control group were normally distributed ($p > 0.05$).

Table 9*Levene Test Result on pretest scores*

		Levene's Test for Equality of Variances	
		F	Sig.
Pretest	Equal variances assumed	0,077	0,783

Since $p > 0.05$ as a result of Levene's test shown in Table 9, the assumption of homogeneity of variances (precondition) was provided.

Table 10 shows the results of the independent samples t-test for the pre-test averages.

Table 10

Independent samples t-test result for pretest means

t	df	Sig. (2-tailed)	Mean Differenc e	Std. Error Differenc e	95% Confidence Interval of the Difference	
					Lower	Upper
0,135	58	0,893	0,85000	6,31426	-11,78936	13,48936

According to the independent samples t-test results shown in Table 10, there is no statistically significant difference between the pretest averages of the experimental and control group. ($p > 0.05$).

4.3.3 Comparison of Posttest Means: Table 4.8 shows the descriptive statistics regarding the posttest scores of the control and experimental groups.

Table 11

Descriptive statistics on posttest scores

Group	n	Mean	Std. Deviation
Control	20	81,15	15,52
Experimental	40	80,95	16,46
Total	60	81,02	16,02

As shown in Table 11, the posttest averages of the control and experimental groups were found to be quite close to each other. The posttest mean of the control group was 81.15. The posttest average of the experimental group was 80.95. Table 12 shows the results of the normality test for the posttest scores.

Table 12

Normality Test Result for posttest scores

	Group	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Post-test	Control	0,158	20	0,200*	0,898	20	0,038
	Experimental	0,173	40	0,004	0,905	40	0,003

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Since the number of people in the experimental group was more than 30, the Kolmogorov-Smirnov test result was checked for the experimental group. According to the Kolmogorov-Smirnov test result shown in Table-9, the posttest scores of the experimental group are not normally distributed ($p < 0.05$). Since the number of people in the control group was less than 30, the Shapiro-Wilk test was used for the control group. According to the Shapiro-Wilk test results, the posttest scores of the control group were not normally distributed ($p < 0.05$).

Since the assumption of normal distribution could not be achieved in the control and experimental group, the Mann Whitney U test, which is a non-parametric test, was used to compare the post-test scores. Table 13 shows the result of the Mann Whitney U test for posttest scores.

Table 13*Mann Whitney U Test Result for posttest scores*

Test Statistics ^a	
	Post-test
Mann-Whitney U	397,000
Wilcoxon W	607,000
Z	-0,047
Asymp. Sig. (2-tailed)	0,962

a. Grouping Variable: Group

According to the Mann Whitney U test results shown in Table 13, there is no statistically significant difference between the posttest scores of the control and experimental group ($p > 0.05$).

4.3.4. Comparison of the Retention Test Means: Table 14 shows the descriptive statistics on retention test scores.

Table 14

Descriptive statistics on retention test scores

Group	n	Mean	Std. Deviation
Control	20	58,7	17,451
Experimental	40	87,7	13,851
Total	60	78,03	20,370

As shown in Table 14, the retention test average of the control group was 58.7. The retention test average of the experimental group was 87.7.

Table 15 shows the results of the normality test regarding the retention test scores.

Table 15

Normality Test Result for retention test scores

Group	Kolmogorov-Smirnov^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
D. Post-test Control	0,161	20	0,182	0,972	20	0,799
Experimental	0,188	40	0,001	0,844	40	0,000

a. Lilliefors Significance Correction

Since the number of people in the experimental group was more than 30, the Kolmogorov-Smirnov test result was checked for the experimental group. According to the Kolmogorov-Smirnov test results shown in Table 15, the retention test scores of the experimental group are not normally distributed ($p < 0.05$). Since the number of people in the control group was less than 30, the Shapiro-Wilk test was used for the control group. According to the Shapiro-Wilk test results, the retention test scores of the control group were normally distributed ($p > 0.05$).

Since the assumption of normal distribution could not be achieved for the experimental group, the Mann Whitney U test, which is a non-parametric test, was used to compare the retention test scores. Table 16 shows the result of the Mann Whitney U test for retention test scores.

Table 16*Result of Mann Whitney U test for retention test*

Test Statistics ^a	
	Post-test
Mann-Whitney U	87,500
Wilcoxon W	297,500
Z	-4,951
Asymp. Sig. (2-tailed)	0,000

a. Grouping Variable: Group

According to the Mann Whitney U test results shown in Table 16, there is a statistically significant difference between the retention test scores of the control and experimental group ($p < 0.05$). This finding shows that the use of Kahoot as a digital tool is effective in improving the English vocabulary of secondary school students in terms of retention.

4.3.5. Intra-Group Comparisons of Pretest and Posttest Scores: The Wilcoxon Signed Rank test, which is the non-parametric equivalent of the dependent samples T-test, was used to compare the pretest and posttest scores within the groups. Wilcoxon Signed Rank test results for pretest and posttest scores are shown in Table 17 and Table 18.

Table 17*Average number of ranks for pretest and posttest scores*

Ranks					
Group			N	Mean Rank	Sum of Ranks
Control	Posttest - Pretest	Negative Ranks	0 ^a	0,00	0,00
		Positive Ranks	19 ^b	10,00	190,00
		Ties	1 ^c		
		Total	20		
Experimental	Posttest - Pretest	Negative Ranks	0 ^a	0,00	0,00
		Positive Ranks	37 ^b	19,00	703,00
		Ties	3 ^c		
		Total	40		

a. Posttest < Pretest

b. Posttest > Pretest

c. Posttest = Pretest

As shown in Table 17, the difference between the posttest score and the pretest score of the 19 students in the control group is positive. In other words, the scores of 19 students in the

control group increased in the posttest. The score of 1 student in the control group did not change.

The scores of 37 students in the experimental group increased in the posttest. Only 3 students in the experimental group had the same pretest and posttest scores.

Table 18 shows the Wilcoxon Signed Rank test result.

Table 18

Wilcoxon Signed Rank test result

		Test Statistics^a	
Group			Posttest - Pretest
Control	Z		-3,825 ^b
	Asymp. Sig. (2-tailed)		,000
Experimental	Z		-5,305 ^b
	Asymp. Sig. (2-tailed)		,000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

According to Wilcoxon Signed Rank test results shown in Table 18,

- There is a statistically significant difference between the pretest and posttest scores of the control group ($p < 0.05$).
- There is a statistically significant difference between the pretest and posttest scores of the experimental group ($p < 0.05$).

4.3.6. Intra-Group Comparisons of Posttest and Retention Test Scores: The Wilcoxon Signed Rank test, which is the non-parametric equivalent of the dependent samples T-test, was used to compare the posttest and retention test scores within the groups. Wilcoxon Signed Rank test results for posttest and retention test scores are shown in Table 19 and Table 20.

Table 19

Average ordinal numbers of posttest and retention test scores

		Ranks			
	Grup		n	Mean Rank	Sum of Ranks
Control	D. Post-test - Post-test	Negative Ranks	19 ^a	10,00	190,00
		Positive Ranks	0 ^b	0,00	0,00
		Ties	1 ^c		

		Total	20		
Experimental	D. Post-test - Post-test	Negative Ranks	6 ^a	13,75	82,50
		Positive Ranks	26 ^b	17,13	445,50
		Ties	8 ^c		
		Total	40		

a. D. Posttest < Posttest

b. D. Posttest > Posttest

c. D. Posttest = Posttest

As shown in Table 19, the difference between the retention test and posttest scores of 19 students in the control group was negative. In other words, the scores of 19 students decreased in the retention test. Only 1 student in the control group has the same retention test score and posttest score. The retention test score of 26 students in the experimental group was higher than the posttest score. The retention test score of 8 students in the experimental group is the same as the posttest score. The retention test score of 6 students in the experimental group was lower than the posttest score.

Table 20 shows the Wilcoxon Signed Rank test result.

Table 20

Wilcoxon Signed Rank test result.

Test Statistics ^a		
Group		D. Posttest - Posttest
Control	Z	-3,828 ^b
	Asymp. Sig. (2-tailed)	,000
Experimental	Z	-3,402 ^c
	Asymp. Sig. (2-tailed)	,001

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

According to the Wilcoxon Signed Rank test results shown in Table 20,

- There is a statistically significant difference between the posttest and retention test scores of the control group ($p < 0.05$). The retention test scores of the control group were lower than the posttest.
- There is a statistically significant difference between the posttest and retention test scores of the experimental group ($p < 0.05$). The retention test scores of the experimental group were higher than the posttest.

4.4. Findings of Qualitative Data

In this section, the students in the experimental groups were asked to communicate their views on the use of Kahoot! application in the English lessons. In order to examine the use of Kahoot! in a detailed way, the researcher also gathered qualitative data to acknowledge students' opinions about Kahoot! application. Qualitative data were gathered through semi-structured interview questions. The interview form was developed by the researcher for and the form included nine questions. Ten students from Kahoot! experimental groups answered the semi-structured interview form. The content validity of semi-structured interview forms was ensured by two teachers serving at schools of Ministry of National Education. 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 her 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 10-20 minutes. After the students' answers were gathered, they were transcribed and evaluated under themes and categories by the researcher and her colleague who was teaching the seventh graders at the time of the study.

Table 21 showing the themes of the interview is presented below.

Table 21

Themes of the interview

Experimental Group	
Group	
Themes	Efficacy/Effectiveness
	Favourable and Unfavourable Features
	Convenience of Use
	Experience

While identifying the themes of the interview, the researcher decided on the primary objectives then created a rough outline of the topics wanted to be covered, based on the research and understanding of the subject matter. As it is a semi-structured interview, the researcher was prepared to adjust the themes during the interview, if necessary, based on responses, unexpected developments or even unplanned occurrences.

The main themes of this research were efficacy, pros and cons of the application, convenience of use and experience and all these themes were approved by other colleagues

using the same application in their lessons. Retention is also an important theme; it is asked in experience section. In quantitative part of the research, it is obvious that retention scores are low in control group which was taught with a traditional lesson plan where teacher used printed vocabulary exercises in the forms of worksheets.

Table 22

The Codes that Included the Positive Views of Students about Kahoot! Application

Codes	f
Entertaining	8
Revision	6
Ranking system	5
Drawing Attention	5
Motivating	5
Reinforcement	3
Interaction	2
Engagement	2
Competition	2
Gamification	2
Concretization	1

The analysis of students' positive responses in the study on the Kahoot! application and the codes that could be considered as the advantages of the application demonstrated that they mostly found the application entertaining (n= 9). 6 of the participants found Kahoot! as a useful tool to revise their lessons (n=6). Ranking system that is also called virtual podium was mentioned by 5 of the participants. As for drawing attention and motivating codes of the interview, one of the students said "When I see myself on the podium, I feel like I am motivated for the next lesson and next game." (n=5). In the course, the other codes that were mentioned were the reinforcement of the course (n= 3), interaction, engagement, competition and gamification (n=2). Concretization was mentioned by one of the students, the students said "Sometimes, it is really hard to learn some concepts, I mean words, that are abstract, for these words, our teacher uses some pictures to make it more concrete."

During the interview, students mainly used positive words about Kahoot! application. Most of the students believed that it should be used in other lessons as well because it is engaging and fun. It is also interactive and it allows students to learn new vocabulary through games.

Table 23 below, shows the codes that included negative views of students about Kahoot! application.

Table 23

The Codes that Included the Negative Views of Students about Kahoot! Application

Codes	f
Stealing the course time	1
Loudly stating the answers	1

Like any learning platform, Kahoot may not be suitable for everyone, and some people may have their personal preferences or opinions about it. Yet, only one of the students in the interview stated negative views about Kahoot!. Only two participants stated negative opinions about Kahoot! but they ended their interview with positive comments. One of them said that Kahoot! steals the course time. The student said that “I like playing games but sometimes I feel like it is stealing the course time.” And the other student said that “After every question, the right and wrong answers are directly stated on the screen. I don’t like this feature of the game. Names are not appearing hopefully. But the teacher sometimes knows who clicked on the wrong option.” Majority of the respondents were very satisfied with the application and requested using more during the lessons. They thought Kahoot! made learning unknown words easier and motivated them. 5 out of 10 students added that it is not suitable for other lessons. One of them stated that “Maths problems require formulas and it is really hard to give quick answers to these questions. “

Some educators argue that Kahoot focuses too much on the competitive and fun aspects of learning, at the expense of deeper understanding and critical thinking. Respondents of the interview did not agree with this idea and one believed that the competitive atmosphere during the lessons made them more motivated.

4.4.1. Efficacy: All the students in the interview group thought that Kahoot! application is an effective and engaging tool. 5 out of 10 students indicated that Kahoot! created a fun and informative learning atmosphere during the lessons. 6 out of 10 students also indicated that thanks to Kahoot!, they could make vocabulary revisions and it helped them improve their vocabulary knowledge. A student stated that through Kahoot! s/he felt less worried during writing activities. Another student indicated that in order not to make mistakes 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. Most of the students find Kahoot to be a fun and effective tool for learning and engagement. Students' opinions are presented below.

S1: "I think this application is very effective because it causes a competitive environment in the classroom which helps us learn new words easier."

S4: "Even though I don't like English lesson, I feel attracted to the lesson and I feel more focused while learning new words of the unit, so it is very effective for me."

S9: "I find it effective because we like learning new things while we are having fun. This application entertains us and makes learning more permanent".

4.4.2. Ranking System: There is a virtual podium at the end of all games in Kahoot! and the participants are asked whether they felt uncomfortable when they did not see themselves on this podium. They stated that the podium helped them track their progress at the end of the game. Three students also stated that they had fun when they saw themselves on the screen. 2 of them added that seeing themselves on the virtual podium motivates them and makes vocabulary learning easier for them. On the other hand, another student stated that s/he felt stressed when in competition with his/her friends while others were motivated instead of feeling uncomfortable. They felt upset when they could not win the game. Last student also stated that s/he felt demotivated when s/he could not see himself/herself on the list.

S10: "I felt great and motivated whenever I saw myself in the podium."

S2: "Podium affected me in a negative way because I feel unsuccessful when I don't see myself there.

S1: "Podium affected me positively because the environment makes me feel competitive and I got ambitious."

S7: "As it loudly states the answers, I sometimes feel offended when I lose a game or click on the wrong answer."

4.4.3. Favourable and Unfavourable Features of Kahoot!: There were many positive attitudes towards Kahoot! and nearly all of the students stated that it should be implemented in every English lesson. The code "entertaining" was the most frequent word during the interview. One of the participants elaborated that Kahoot! provides a fun and engaging way to acquire new knowledge. They also indicated that it promotes teamwork and healthy competition among

them, which can be beneficial for their social and emotional development. Kahoot! is also a valuable resource for educators and learners because it has a large community of users who share their quizzes and games.

S1: “There are hundreds of games, prepared beforehand, for teachers to use during lessons and this is great!”

In secondary schools, students are not as patient as adult learners, so teacher must find a new activity or exercise in a fast way. Thanks to Kahoot!, teachers can reach games easily and it is free to join for everyone. By playing games they can make revisions of previous units and this helps retention. This application is also user-friendly and accessible, making it easy for both teachers and students to use.

Some of the students’ opinions are presented below:

S4: “In Kahoot!, every question has a picture and this helped me remember the meaning after playing the game, it also helped us learn to be a team as a class.”

S6: “It makes learning process entertaining and we never feel bored during the lessons and feel more focused.”

S10: “Kahoot helped me learn new vocabulary and keep them in my mind permanently.” Student 10’s comment on Kahoot! was about retention. 2 more students stated their opinions about retention, they also realized that it helps them store the words in their minds permanently.

S2: “It was fun for me. Also, it became more fun with my classmates. The course grabbed my attention better.”

There was only one negative comment about Kahoot!. The participant stated that Kahoot! would be better if it could be used offline. “I had difficulty in answering questions due to internet-related problems. So, one could download the application beforehand and use it during the lessons without connection.” the participant added. Because some students may have connection problems and this causes less participation and interaction.

4.4.4. Interaction and engagement: The analysis suggests that Kahoot! gave students a chance to interact and engage with the teacher, classmates and the content of the lesson by providing a fun platform on which to engage. All 10 participants reported that Kahoot! positively impacted engagement in the class, and 8 of the 10 participants said that Kahoot! increased their interaction and involvement in the lectures. One of them stated the following “It is a great tool for us and making the lesson more interactive and engaging. Technology causes loneliness but this game brings us together as a team.” Some of the students’ opinions are presented below:

S6: “Colorful and attractive question format capture our attention, making the lesson more interesting for us.”

S9: “There are various question formats such as multiple-choice, true/false, puzzles, and more. These formats are keeping us attracted to the lesson.”

S7: “There is a competitive side of this game and when we compete against each other, we actively participate in the lesson.”

4.4.5. Competition: Eight participants agreed that there is competitive element in Kahoot, making it more engaging and easier to implement in the lessons. They all liked the competitive side of Kahoot, seeing it as a motivating factor to take part in activities, helping them to think and act critically, increasing their engagement and promoting a lively classroom dynamic. It also seems to have been an icebreaker for a few students, encouraging them to interact with their peers.

S3: “After each question, we have a short time to discuss the answers with my friends. We play as a team and this helps us collaborate.”

S6: “When we compete with each other, we learn more easily.”

One of the participants recommended using Kahoot individually, he/she stated :

S8: “Sometimes, the person who is responsible for clicking on the right button, clicks on the wrong button by mistake. This creates anger among team members and causes problems. I prefer using this application individually.”

Student 1 commented that Kahoot is sometimes losing its aim, he/she stated following sentence:

“I think sometimes you lose sight of trying to learn new things because you are just trying to win and have fun with friends instead of learning.”

4.4.6. Learning and knowledge retention: Seven out of the 10 participants stated that Kahoot! was a very effective learning application, and all of them described Kahoot! as having a positive influence on their learning experience. During the interviews, students made positive comments on Kahoot! and they all expressed it supported their learning. They stated that spending time with Kahoot! helped them to review the previous lesson, at the same time helping them learn new vocabulary that they come across while choosing between distractors. Distractors in the options were from previous units and this helped them memorize the vocabulary in other units. They also reported that Kahoot! increased their knowledge. Knowing that there would be a Kahoot! in class also motivated several students to prepare

and review material in order to do well in the Kahoot!.

S5: “When the question appears on the screen, you have to think about the answer, You have to look at what the teacher has taught to be prepared for the questions... so that’s kind of a revision at the same time.”

S6: It helped me with the reviewing what we’d already learned in a different, fun way. This helped me learn indirectly and store the vocabulary in my mind.”

4.4.7. Fun and Enjoyment: As it is used for a game during the lectures, fun and entertainment are the two main reasons for implementing Kahoot! in the lessons. The data showed that the participants enjoyed the Kahoot!. All of the participants pointed out that Kahoot! was fun and should be used in other lessons. A few students stated that Kahoot! improved their competitive skills and taught them how to play a game as a team. This also helped them to support and help each other in the lessons. These positive aspects of Kahoot! made it more popular among teachers.

S1: “Using Kahoot! in the lessons was a lot of fun not only for the students but also for teachers. The atmosphere in the lesson completely changes when the game starts. It is a good and fun way to teach vocabulary to the learners.”

One of the participants reported that Kahoot! was a waste of time, stating the following comment about it.

S7: “I believe that Kahoot! is stealing the course time, my friends consider it as a way of disrupting the lecture as well.”

CHAPTER 5

RESULTS AND DISCUSSION

5.1. Overview

In this study, the researcher aimed to investigate the effects of using Kahoot! in teaching vocabulary as well as in the retention of vocabulary. To get reliable results, an experiment group and a control group participated in the study. The selected twenty-four target words appeared in the students' coursebook in two units. The researcher in collaboration with her colleague and supervisor prepared the teaching plans, worksheets, and materials. These were used during four weeks of the teaching process for both groups. However, at the end of each lesson, during the practice of the newly taught vocabulary the experiment group received different practice activities. The experiment group studied the target words on Kahoot! by playing vocabulary games prepared by the teacher. On the other hand, the control group studied the same target words by using a traditional method which is using printed worksheets and pencils instead of using Kahoot. The success of teaching and learning for both groups were evaluated by tests. The quantitative data for the study was collected through a three-stage process which included the pretests, posttests and delayed posttests. The qualitative data was conducted by a semi-structured interview of mainly nine questions which were subject to alteration during the process. Qualitative data was analysed with attention to the themes suggested in the answers of the participants. Research questions are listed and discussed below.

RQ1. How effective is Kahoot! for vocabulary learning?

RQ2. How does the use of Kahoot! in vocabulary teaching in EFL influence vocabulary retention?

RQ3. What is the potential impact of Kahoot! on the long-term retention of vocabulary items?

RQ4. What are the students' opinions on Kahoot! and vocabulary learning?

5.1.1. Discussion of Research Question 1: The aim of research question 1 was to investigate the effectiveness of using Kahoot! on vocabulary learning.

“How effective is Kahoot! for vocabulary learning?” The first research question consists of two sub research questions and each of them will be discussed below one by one.

This research question aimed to investigate whether using Kahoot! is more effective than traditional methods for learning vocabulary. In order to find an answer to this question the experimental group used Kahoot! during the practice of the newly taught vocabulary throughout

the teaching practice period of the study while the control group used traditional printed worksheet practice tests. When the statistical analysis was carried out, it can be clearly seen that there is a statistically significant difference between the retention test scores of the control and experimental groups ($p < 0.05$).

The significant statistical difference between the two groups suggests that the use of Kahoot as a digital tool is effective in improving the English vocabulary of secondary school students in terms of retention. The delayed posttest results of the experimental group show that the teaching of new vocabulary via using Kahoot! as a digital tool for practice resulted in long-term retention. While on the other hand, the results of the control group for the retention test were lower than the posttest results. The control group failed to store the newly taught vocabulary in long-term memory. Thus, it is true to conclude that using Kahoot! proved to be effective for vocabulary learning. Likewise, Bawa (2019) stated that Kahoot! application increases learning performance of university students and contributes to active learning.

“How effective is Kahoot! When compared to traditional methods for vocabulary learning?” The aim of this research question was to compare the effectiveness of Kahoot! and the effectiveness of traditional methods for vocabulary learning. To achieve this aim, the experimental group and the control group received different practice activities during the teaching practice. The results of both groups in the posttest and delayed posttests were compared in order to evaluate the effectiveness. According to the quantitative data, the students in the experimental group who were exposed to Kahoot! during their lectures got higher marks in the retention test. This means that Kahoot! is more effective than traditional methods for new vocabulary learning. However, there is no statistically significant difference between the posttest scores of the control and experimental groups.

Similar results were obtained in another study. Yürük (2019) similarly found that Kahoot increases the effectiveness of the lesson ($M=4.48$, $SD=.60$) and it provides opportunity to students to express themselves in a comfortable atmosphere ($M=4.42$, $SD=.65$) and also stated that the application contributes to enhance motivation ($M=4.43$, $SD=.56$). Kurtoğlu also stated “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.”

The results also support the findings of Kilickaya and Krajka (2010). In Kilickaya and Krajka’s (2010) study, it was suggested that incorporating technology into instruction was found to make vocabulary instruction more effective. Wichadee and Pattanapichet (2018) emphasizes

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.

5.1.2. Discussion of Research Question 2: “How does the use of Kahoot! in vocabulary teaching in EFL influence vocabulary retention?” While teaching vocabulary it is important that the students store newly taught words for long-term retention. Thus, this research question was examined to see the retention of the target words in both experiment and control groups. In order to answer this question, four weeks after the application of the posttest, both groups received a delayed posttest. The delayed posttest results were compared for both groups to see the effectiveness of Kahoot! and traditional vocabulary practice activities. According to the statistical results, the retention test average of the control group was 58.7. The retention test average of the experimental group was 87.7. This clearly proves that Kahoot! influences vocabulary retention positively in EFL. In addition to this result, there is also a statistically significant difference between the post-test and retention test scores of the experimental group ($p < 0.05$). The retention test scores of the experimental group were higher than the post-test.

The results in the present study show similarities with the research of Huang (2015) in that the use of technology or use of online tools to reinforce vocabulary instruction resulted in an increase of vocabulary acquisition. Previous research also indicates repeated exposure to newly learned vocabulary (Rupley et al., 2002; NPR, 2002) in addition to instruction incorporating technology is effective in promoting retention of vocabulary (Huang, 2015; Johnson et al., 1987).

5.1.3. Discussion of Research Question 3: “What is the potential impact of Kahoot! on the long-term retention of vocabulary items?” There is a statistically significant difference between the post-test and retention test scores of the experimental group ($p < 0.05$). The retention test scores of the experimental group were higher than the post-test. This proves that Kahoot! effects overall success of students as control group’s retention test results were lower than the experimental group’s test results. In the control group, traditional methods were frequently used and they were not as active as the experimental group during the lessons.

Traditional methods of learning vocabulary often involve activities such as reading textbooks, using flashcards, and participating in classroom discussions. These methods have been used for a long time and have proven to be effective for many learners. They provide a

structured approach to learning, allowing students to focus on specific words, their meanings, and how to use them in context.

However, with the development of technological tools and the changes in the lives of the learners after the pandemic, language teaching altered with the contribution of online educative tools. The present study clearly shows that the traditional methods are not as effective as online educative tools. To sum up, the results indicate that there was a statistically significant difference between the experimental and control groups in favour of the experimental group regarding the use of Kahoot web-based learning in learning vocabulary.

5.1.4. Discussion of Research Question 4:

“What are the students’ opinions on Kahoot! and vocabulary learning?”

To answer this research question, four weeks after the application of the posttest, both experiment and control groups received a delayed posttest. Kahoot! provides immediate feedback to students, indicating whether their answers are correct or incorrect. This feedback can help reinforce correct associations between vocabulary items and their meanings. Reinforcing correct responses can strengthen memory traces and support long-term retention. As pointed above, in this study, the retention test was applied to students four weeks after post-test. After the post-test, the teacher went on the lectures using Kahoot! and then retention test was done. The results have shown that Kahoot! positively affect students’ long-term retention. The outcomes of this research are consistent with the results of Ciaramella (2017), who assessed the influence of Kahoot on vocabulary acquisition and retention and found that utilizing a game-based learning platform increased vocabulary acquisition and retention.

The data for the fourth research question was qualitative and was gathered by a semi-structured interview. The nine interview questions focused on the themes of effectiveness, favourable and unfavourable features, convenience of use and experience. The researcher assumed that the views of the learners as Kahoot! users would reveal an insight into their experiences. Such an insight would help the teachers in planning their lessons with Kahoot!. The strengths and weaknesses of this application as a tool for vocabulary learning would also be exposed.

Nearly all of the participants found Kahoot! entertaining and engaging. The entertaining and game-like nature of Kahoot! can make vocabulary learning more exciting and interactive. Participants liked the opportunity to take part in actively, compete with their classmates, and see their results quickly. Participants also stated that Kahoot! captures students' attention and maintains their interest in the learning process. Some students added that Kahoot! helps them

remember vocabulary items better. The repeated exposure to words, the active retrieval of information, collaboration among students, enjoyable experience and the immediate feedback can contribute to better retention. Students enjoy the reinforcement and reinforcement of correct answers, which can solidify their understanding and memory of the vocabulary. Participants are attracted to Kahoot! because of its use of technology. Licorish, Owen, Daniel, and George (2018) implemented a similar study and showed that participants enjoyed Kahoot!. Participants also expressed that Kahoot! drew their attention and interest. Their outcomes demonstrated that Kahoot! increased motivation, engagement and interaction in the classroom. As they are secondary school students, they like using devices such as smartphones, tablets, or computers to take part in the quizzes. The use of technology adds a modern and enjoyable aspect to the vocabulary learning process. This leads to retention of the vocabulary and makes learning easier.

CHAPTER 6

CONCLUSION

To begin with the purpose of the study, this study has aimed to look into the impact of Kahoot! on vocabulary learning and retention of 7th grade secondary school students studying in a state school in İstanbul during the fall and spring semester of 2022-2023 Academic Year. Moreover, this study has examined the effect of Kahoot! on vocabulary learning and retention of the participants. Ultimately, another aim of this study has been to learn about the ideas and comments of the participants using Kahoot! in terms of vocabulary learning and retention through a semi-structured interview investigating their opinions about their experience with Kahoot! and their ideas about game modes of Kahoot!

When all the things are taken into consideration and the results of the posttests were analysed, findings of the present study clearly showed that the students who were taught vocabulary with Kahoot! during the research had significantly better results compared to the ones in the control group who studied the new words using old methods, pen and paper activities, and worksheets, which proved that Kahoot! has led to vocabulary learning and retention of the students considerably. Also, the qualitative data of this research confirms the effectiveness of Kahoot! in enhancing students' vocabulary knowledge as well as providing a permanent learning of the vocabulary.

Furthermore, the results suggest that there is a statistically significant difference between the retention test scores of the control and experimental groups. This finding shows that the use of Kahoot as a digital tool is effective in improving the English vocabulary of secondary school students in terms of retention. The findings obtained through interviews with students demonstrated that they have mostly positive opinions on the integration of Kahoot! into the lessons. It can be inferred that students are happy to use Kahoot! while learning English for various reasons. This conclusion is in line with those of Emecen's (2019) who has found out after the survey that the learners enjoyed playing Kahoot! in English class. Learners also claimed that remembering words is easy with the help of Kahoot!. According to these findings, it can be concluded that the students are very interested in Kahoot and pleased with their test scores. All students describe the course engaging and unforgettable as a learning atmosphere and all of them want to take part in these lessons. Moreover, it was revealed from the findings that the students like Kahoot! questions with pictures in it. So, the teacher as a researcher prepared these types of activities for the students to motivate them while playing Kahoot!. The

researcher tried to prepare quizzes according to students' needs and likes. This conclusion has similarities with those of Brooke's (2015) and Saville-Troike (2016) which assert that the online classes and course resources should be prepared and designed according to the students' needs and interests in order to make them more motivated and interested in the lessons. Finally, the data collected through interviews concluded that students' opinions towards Kahoot! are positive and they are more optimistic about the future courses as such.

Not but not least, this current research provides a great deal of implications for teachers, lecturers, teacher trainers, curriculum designers and material writers. First of all, educators should revise and implement the recent changes in technology. Integrating technology into the lectures is a must in our age. Teachers should find and use the latest methods and techniques in teaching and designing their lessons to meet the needs of their learners. As the new generation is familiar with the technology, teachers should take advantage of technology in their lessons. Gamification can ensure many facilities for the teachers. It can increase interaction and engagement and make their lessons lively. In short, teachers play the key role in guiding the learners to use gamification in teaching and they must take the responsibility of supporting the learners with inputs including latest methods as much as possible.

6.1. Limitations of the Study

There are a few limitations in this study. First one is the number of the participants. It was planned to involve 107 students but half of them were absent during the 4-weeks Kahoot! practice. The researcher picked up students who were not absent during the practice period and exclude them from the study. So, there were 20 students from each class. In the end, only 60 participants took part in the study which makes it difficult to generalize the results to a large number of learners. Second limitation is time span. This study is limited only to four weeks and one lesson hour of exercise each week is going to be conducted. Because of the time span, post-test results may be affected by the pre-test results. Third limitation is that this study is limited to 24 words which are going to be taught. Fourth limitation is that only one Web 2.0 tool which is Kahoot! is going to be utilized in this study. Fifth limitation is that due to two massive earthquakes in the east of Turkey, the semester lasted one month, so the study started two weeks later than it was planned and the students were still not in a good mood for the lessons. For this reason, pretest results may be affected negatively.

6.2. Suggestions for Further Studies

Games are widely perceived to be a beneficial teaching tool in English language classes. English language teachers often benefit from games when they would like to make a target phrase more memorable or teach vocabulary in a more effective way. For further studies, researchers may carry on more sophisticated research with larger number of participants in a longer time span. In other words, the researchers are suggested to investigate the impact and role of using Kahoot! with higher numbers of participants and in longer periods of time. Also, these results are from a secondary school in İstanbul and represent only one single socioeconomic profile. That's why, the results must be validated or objected by further research in other school contexts such as high schools, primary schools etc. As for the English teachers, they are suggested to take the advantages of using Kahoot! to teach vocabulary in their classes so that they can not only improve the vocabulary learning and retention of their students but also increase the motivation of their students through using Kahoot.

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APPENDIX

Appendix 1: Approval Form of Provincial Directorate of National Education of İstanbul



T.C.
İSTANBUL VALİLİĞİ
İl Millî Eğitim Müdürlüğü

Sayı : E-59090411-44-74617022 17.04.2023
Konu : Anket ve Araştırma İzni (Tuğba KASAP)

BURSA ULUDAĞ ÜNİVERSİTESİ REKTÖRLÜĞÜNE
(Öğrenci İşleri Daire Başkanlığı)

İlgi : a) Yenilik ve Eğitim Teknolojileri Genel Müdürlüğünün 21.01.2020 tarihli ve 2020/2 sayılı genelgesi.
b) Valilik Makamının 10.04.2023 tarihli ve E-59090411-20-74054121 sayılı oluru.

Valilik Makamının Anket ve Araştırma İzni konulu ilgi (b) oluru ve kullanılması uygun görülen ölçme araçlarının Müdürlüğümüzce mühürlenmiş örnekleri ekte gönderilmiştir.

İlgi (a) genelgenin 28. maddesinde; "Araştırma uygulama izni alan kamu kurum ve kuruluşları, uluslararası kuruluşlar, üniversiteler, sivil toplum kuruluşları ve araştırmacılar tamamladıkları bilimsel araştırma ile ilgili sonuç raporlarını, izni aldıkları ilgili birime çalışma bitiminden itibaren 30 gün içerisinde göndereceklerdir." ifadesi yer almaktadır.

Olur gereğince işlem yapılması ve araştırma sonuç raporunun ekte sunulan örneğe göre Müdürlüğümüz Strateji Geliştirme Şubesine gönderilmesi hususlarında gereğini arz ederim.

Mustafa ERŞAHİN
İl Millî Eğitim Müdürü a.
Şube Müdürü

Ek:

1. Valilik Oluru (1 Sayfa)
2. Rapor Örneği
3. Ölçekler

Bu belge güvenli elektronik imza ile imzalanmıştır.

Adres: Binbirdirek Mah. İmran Öktem Cad. No: 1 Sultanahmet Fatih

İstanbul Belge Doğrulama: <https://www.turkiye.gov.tr/meb-ebys>

Telefon: 0212 384 36 32 Bilgi İçin: Aykut ÇELİK

E-posta: stratejigelistirme34@meb.gov.tr Unvanı: Büro Hizmetleri

Keş Adresi: meb@hs01.kep.tr İnternet Adresi: <http://istanbul.meb.gov.tr/>

Appendix 2: Teaching Materials for the Control Group

CELEBRATIONS – LESSON PLAN FOR 2 WEEKS

SPECIAL DAYS

birthday party: doğum günü partisi

graduation party: mezuniyet partisi

fancy dress party: kıyafet balosu

costume party: kostüm partisi

wedding day: düğün

wedding anniversary: evlilik yıl dönümü

engagement party: nişan partisi

farewell party: veda partisi

father's day: babalar günü

slumber party: pijama partisi

Ramadan Feast: Ramazan Bayramı

Sacrifice Feast: Kurban Bayramı

IMPORTANT VOCABULARY

invite: davet etmek

order: sipariş etmek

guest: misafir

host: ev sahibi

relatives: akraba

arrange: ayarlamak

graduate: mezun olmak

organize: organize etmek

decorate: süslemek

decoration: süs

need: ihtiyaç

buy: satın almak

prepare: hazırlamak

close friend: yakın arkadaş

meet: buluşmak

type: tür

delicious: lezzetli

corn: mısır

SEQUENCES OF ACTIONS

First, we decorate the place.

Then, we should prepare a guest list and invite them.

Next, we should prepare food and beverages.

Finally, wait for the guests to come over.

ACTIVITY 1: Use the given words and fill in the blanks. One word is extra.

arrange - host - decorate - wrap

1. It's not very hard to _____ people if you can cook delicious food.
2. Tom wants to _____ a birthday party for his sister.
3. Let's _____ the living room with a banner and _____ the gifts before the guests come.

OFFERING AND MAKING QUESTIONS

1. Would you like _____?

(_____ ister misin?)

- Would you like to join my party?

(Partime katılmak ister misin?)

2. Why don't you _____?

Why don't we _____?

(Neden _____ yapmıyoruz?)

- Why don't we throw a party?

(Neden parti vermiyoruz?)

3. Shall we _____?

(_____ yapalım mı?)

- Shall we drink coffee?

(Kahve içelim mi?)

4. Let's _____.

(Hadi _____.)

- Let's go for a walk.

(Hadi yürüyüşe çıkalım.)

5. How about + Verb(ing)

What about + Verb(ing)

(_____ ne dersin?)

- What about making a cake?

(Kek yapmaya ne dersin?)

- How about riding a bike?

QUANTIFIERS

SOME(biraz, birkaç)

- Sayılabilen + sayılamayan isimlerle kullanılır.
- Olumlu cümlelerde kullanılır.
- "Would/Could/Can" ile başlayan soru kalıplarında da kullanılır.

-We need some candles for the cake.

(Pasta için birkaç mum ihtiyacımız var.)

-Would you like some tea?

(Biraz çay ister misin?)

A FEW (birkaç)

• Sayılabilen çoğul isimlerle kullanılır.

• Olumlu cümlelerde kullanılır.

-She needs a few party hats.

(Birkaç parti şapkasına ihtiyacı var.)

-We have only a few balloons.

(Sadece birkaç tane balonumuz var.)

ACTIVITY 2: Make your own sentences by using the following words.

Beverages : _____

Arrange : _____

Attend : _____

DREAMS – LESSON PLAN FOR 2 WEEKS (1ST WEEK)

VOCABULARY

dream : hayal, rüya
 make prediction : tahmin etmek
 imagine : hayal etmek
 probably : muhtemelen
 career : kariyer
 receive : ulaşmak, haber almak
 excellent : muhteşem
 believe : inanmak
 guess : tahmin etmek
 especially : özellikle
 definitely : kesinlikle
 be successful : başarılı olmak
 pass the exam : sınavı geçmek
 get a job : meslek sahibi olmak
 have a celebration : kutlama yapmak
 vote : oylama yapmak
 election : seçimler
 get bored : sıkılmak
 put on weight : kilo almak
 get award : ödül almak

look up : saygı duymak
 get married : evlenmek
 peaceful : huzurlu
 play a trick on : birine şaka yapmak
 win : kazanmak
 beat : yenmek
 disappear : yok olmak
 make a career : kariyer yapmak
 science : bilim
 technology : teknoloji
 healthy life : sağlıklı hayat
 concern : endişe duymak
 hope : ummak
 cure : tedavi etmek
 achieve : ulaşmak
 Come on! : hadi ama!
 trick : şaka
 expectation : beklenti
 passion : tutku
 goal : hedef
 make a guess: tahmin et

ACTIVITY 1 : Match the words with the pictures.

excellent
 make a career

guess
 imagine

dream
 prediction

receive
 play a trick

probably
 get award



ACTIVITY 2 Write sentences about your future using given words.

go to university

travel all around the world

buy a house

1. I hope

.....

2. I believe

.....

3. I think

.....

4. I guess

.....

ACTIVITY 3 USE “WILL” AND THE VERBS BELOW TO COMPLETE THE PARAGRAPH.

get married find go buy live be

I have good dreams for the future. I believe I (1) to a good university and I (2) very successful at school. After I graduate from university, I hope I (3) a good job. Probably, I (4) in a big city. I predict I (5) a big house and I (6) to a beautiful woman when I am about 30 years old and we will have two children, a boy and a girl.

ACTIVITY 4 READ AND COMPLETE.

peaceful - probably - lucky - receive - tell
 dream - make - predict - career

1. A: What is your number? B: It’s eight. I love this number!
2. A: How many children will I have? Can you a guess? B: I think two. A boy and a girl.
3. You will have a very good and work for a big company.
4. Yesterday evening, I didn’t go out. I stayed at home alone and listened to some music. Then I went to bed. It was a(n) evening.
5. A: Let’s play a game. B: That’s a good idea. What game is it? A: You will choose a number and won’t tell it to me. I will try to it correctly.
6. I don’t believe in fortune telling. All the fortune tellers lies.
7. Fiona’s for the future is to become a successful and famous singer.

8. My horoscope says I will some good news this week.

9. A: When will I finish the university? B: You will graduate next year.

ACTIVITY 5 CIRCLE THE CORRECT WORDS.

A. Traveling is about the goals related to the **health / private life**.

B. I hope the problem of traffic jam is going to be solved with **flying cars / electric cars**.

C. You may have some **bad / good** news about your school life. I mean you will fail to pass the exams.

D. A self-driving car **needs / does not need** a driver. It goes by itself.

E. They are planning to live in **a village / a big city**, because they are fond of a life in nature

Appendix 3: Öntest - Pretest

Değerli öğrenciler, Aşağıda 24 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. Tuğba KASAP İngilizce Öğretmeni

1. Tom : Could you help us - - - - the presents?
Emel : Sorry, I can't. I'm preparing the table at the moment.
A) Hang B) wrap C) reply D) mean
2. All the - - - - - arrived on time. That was a pleasant surprise for me.
A) Hats B) guests C) candles D) beverages
3. Let's buy a pizza and some soft - - - - - for this evening.
A) Candles B) music CDs C) balloons D) beverages
4. We should - - - - - this room with a "Happy Birthday" banner.
A) Organize B) decorate C) refuse D) presents
5. It's not very hard to - - - - - people at the party. If you are prepared beforehand.
A) refuse B) hold C) attend D) host
6. Pam: How often do you - - - - - parties in your home?
Pam's friend : Twice a year.
A) Take B) guest C) organize D) decorate
7. Tom: Why did she - - - - - his invitation for the Halloween?
Fiona : She must be busy.
A) Refuse B) accept C) wrap D) organize
8. I need some cards, scissors and a glue. I will prepare - - - - - for my birthday party.
A) Balloons B) Plates C) beverages D) invitation cards
9. Fiona : I am going to - - - - - my nephew's first birthday party.
Sam : You must be excited.
Fiona: Yes, I am.
A) Attend B) refuse C) hold D) accept
10. She wore a - - - - - dress at yesterday's party.
A) fancy B) pyjamas C) cakes D) ornament
11. Sam : Mum, Can I - - - - Jack for my sister's birthday party ?
Mum : Yes, certainly. He is your close friend.
A) collect B) refuse C) explain D) invite
12. Sam: Can you help me - - - - - the table?
Mom: Sorry, I can't. I am decorating the room right now.

- A) Prepare B) host C) reply D) invite
13. I will - - - - - be a volleyball player because I am in the school team.
A) probably B) sometimes C) believe D) guess
14. I believe I will be successful in my - - - - - .
A) dream B) trick C) predict d) imagine
15. I - - - - - she will be successful in her career as an English teacher.
A) Hate B) believe C) like D) accept
16. Larry : What is your - - - - - for the future?
Susan: I want to be a lawyer.
A) Make a guess B) organize C) dream D) trick
17. George: I have something in my hand. You should - - - - - .
Sue : Hmm... Is it a coin?
George: No, it isn't.
A) Probably B) make a career C) make a guess D) dream
18. What do you - - - - - about your life in the future?
A) Recieve B) provide C) predict D) trick
19. I - - - - -, I will have three kids because I love large families.
A) Probably B) guess C) recieve D) make life hard
20. Mert will be a/an - - - - - musician. He is very good at playing the piano.
A) excellent B) weak C) slow D) untidy
21. Helly : I won't play a - - - - - on Jack again.
Rose : Why?
Helly : He was very angry with me last time.
A) Tell story B) tell the truth C) trick D) price
22. I think the world will be a more - - - - - place if we love and show respect to each other.
A) Peaceful B) prediction C) boring D) informative
23. The fortune teller says I will - - - - - good news.
A) recieve B) tell C) say D) predict
24. Scientists predict that there will be flying cars in 2050.
Can you - - - - - that ?
A) read B) tell a lie C) imagine D) recieve

Appendix 4: Sontest - Post test

Değerli öğrenciler, Aşağıda 24 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. Tuğba KASAP İngilizce Öğretmeni

1. Sam : Mum, Can I - - - - Jack for my sister's birthday party ?
Mum : Yes, certainly. He is your close friend.
A) collect B) refuse C) explain D) invite
2. All the - - - - - arrived on time. That was a pleasant surprise for me.
A) Hats B) guests C) candles D) beverages
3. Let's buy a pizza and some soft - - - - - for this evening.
A) Candles B) music CDs C) balloons D) beverages
4. We should - - - - - this room with a "Happy Birthday" banner.
A) Organize B) decorate C) refuse D) presents
5. Tom : Could you help us - - - - the presents?
Emel : Sorry, I can't. I'm preparing the table at the moment.
A) Hang B) wrap C) reply D) mean
6. Pam: How often do you - - - - - parties in your home?
Pam's friend : Twice a year.
A) Take B) guest C) organize D) decorate
7. Tom: Why did she - - - - - his invitation for the Halloween?
Fiona : She must be busy.
A) Refuse B) accept C) wrap D)organize
8. It's not very hard to - - - - - people at the party. If you are prepared beforehand.
A) refuse B) hold C) attend D) host
9. I need some cards, scissors and a glue. I will prepare - - - - - for my birthday party.
A) Balloons B) Plates C) beverages D) invitation cards
10. Sam: Can you help me - - - - - the table?
Mom: Sorry, I can't. I am decorating the room right now.
A) Prepare B) host C) reply D) invite
11. She wore a - - - - - dress at yesterday's party.
A) fancy B) pyjamas C) cakes D) ornament
12. Fiona : I am going to - - - - - my nephew's first birthday party.
Sam : You must be excited.
Fiona: Yes, I am.

- A) Attend B) refuse C) hold D) accept
13. I believe I will be successful in my - - - - - .
A) dream B) trick C) predict d) imagine
14. I - - - - - she will be successful in her career as an English teacher.
A) Hate B) believe C) like D) accept
15. George: I have something in my hand. You should - - - - - .
Sue : Hmmm... Is it a coin?
George: No, it isn't.
A) Probably B) make a career C) make a guess D) dream
16. What do you - - - - - about your life in the future?
A) Recieve B) provide C) predict D) trick
17. I - - - - - , I will have three kids because I love large families.
A) Probably B) guess C) recieve D) make life hard
18. Mert will be a/an - - - - - musician. He is very good at playing the piano.
A) excellent B) weak C) slow D) untidy
19. Helly : I won't play a - - - - - on Jack again.
Rose : Why?
Helly : He was very angry with me last time.
A) Tell story B) tell the truth C) trick D) price
20. I will - - - - - be a volleyball player because I am in the school team.
A) probably B) sometimes C) believe D) guess
21. The fortune teller says I will - - - - - good news.
A) recieve B) tell C) say D) predict
22. Scientists predict that there will be flying cars in 2050.
Can you - - - - - that ?
A) read B) tell a lie C) imagine D) recieve
23. Larry : What is your - - - - - for the future?
Susan: I want to be a lawyer.
A) Make a guess B) organize C) dream D) trick
24. I think the world will be a more - - - - - place if we love and show respect to each other.
A) Peaceful B) prediction C) boring D) informative

Appendix 5: Geciktirilmiş Son Test – Delayed Post Test

Değerli öğrenciler, Aşağıda 24 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. Tuğba KASAP İngilizce Öğretmeni

1. All the ----- arrived on time. That was a pleasant surprise for me.
A) Hats B) guests C) candles D) beverages
2. We should ----- this room with a “Happy Birthday” banner.
A) Organize B) decorate C) refuse D) presents
3. It’s not very hard to ----- people at the party. If you are prepared beforehand.
A) refuse B) hold C) attend D) host
4. Tom: Why did she ----- his invitation for the Halloween?
Fiona : She must be busy.
A) Refuse B) accept C) wrap D)organize
5. Tom : Could you help us ----- the presents?
Emel : Sorry, I can’t. I’m preparing the table at the moment.
A) Hang B) wrap C) reply D) mean
6. Sam : Mum, Can I ----- Jack for my sister’s birthday party ?
Mum : Yes, certainly. He is your close friend.
A) collect B) refuse C) explain D) invite
7. I need some cards, scissors and a glue. I will prepare ----- for my birtyday party.
A) Balloons B) Plates C) beverages D) invitation cards
8. Fiona : I am going to ----- my nephew’s first birthday party.
Sam : You must be excited.
Fiona: Yes, I am.
A) Attend B) refuse C) hold D) accept
9. She wore a ----- dress at yesterday’s party.
A) fancy B) pyjamas C) cakes D) ornament
10. Sam: Can you help me ----- the table?
Mom: Sorry, I can’t. I am decorating the room right now.
A) Prepare B) host C) reply D) invite
11. I will ----- be a volleyball player because I am in the school team.
A) probably B) sometimes C) believe D) guess

12. I - - - - - she will be successful in her career as an English teacher.
A) Hate B) believe C) like D) accept
13. Let's buy a pizza and some soft - - - - - for this evening.
A) Candles B) music CDs C) balloons D) beverages
14. Larry : What is your - - - - - for the future?
Susan: I want to be a lawyer.
A) Make a guess B) organize C) dream D) trick
15. George: I have something in my hand. You should - - - - - .
Sue : Hmmm... Is it a coin?
George: No, it isn't.
A) Probably B) make a career C) make a guess D) dream
16. What do you - - - - - about your life in the future?
A) Recieve B) provide C) predict D) trick
17. Mert will be a/an - - - - - musician. He is very good at playing the piano.
A) excellent B) weak C) slow D) untidy
18. Helly : I won't play a - - - - - on Jack again.
Rose : Why?
Helly : He was very angry with me last time.
A) Tell story B) tell the truth C) trick D) price
19. I believe I will be successful in my - - - - - .
A) dream B) trick C) predict d) imagine
20. I think the world will be a more - - - - - place if we love and show respect to each other.
A) Peaceful B) prediction C) boring D) informative
21. The fortune teller says I will - - - - - good news.
A) recieve B) tell C) say D) predict
22. Scientists predict that there will be flying cars in 2050.
Can you - - - - - that ?
A) read B) tell a lie C) imagine D) recieve
23. I - - - - -, I will have three kids because I love large families.
A) Probably B) guess C) recieve D) make life hard

Appendix 6: Yarı Yapılandırılmış Anket Soruları – Semi Structured Interview Questions

1. Kahoot! uygulamasının kelime öğreniminde etkili olduğunu düşünüyor musunuz? Neden?
2. Haftada kaç saat Kahoot! uygulaması kullandınız? Yeterli miydi?
3. Kahoot! uygulamasının kelime öğreniminde size hangi yönleriyle yardımcı olduğunu düşünüyorsunuz? Sebepleriyle açıklayınız.
4. Kahoot! uygulamasının kelime öğreniminde size hangi yönleriyle yardımcı olmadığını düşünüyorsunuz? Sebepleriyle açıklayınız.
5. Sizce Kahoot! eğlenceli bir uygulama mı? Öyleyse, hangi yönleriyle eğlenceli?
6. Sizce Kahoot! uygulamasının kullanımı kolay mı? Öyleyse, hangi özellikleriyle kolay?
7. Kahoot! uygulamasındaki rekabet ortamı öğrenmenizi nasıl etkiliyor? Yarışma ortamı kelime öğrenmenizi kolaylaştırıyor mu?
8. Kahoot! uygulamasının dışında derslerde kullandığınız başka Web 2.0 aracı var mı ? Öyleyse, Kahoot!'tan ne şekilde farklı?
9. Başka hangi derslerde Kahoot! uygulaması kullanıyorsunuz ? Kullanıyorsanız dersi daha eğlenceli hale getiriyor mu?

ÖZ GEÇMİŞ			
Adı-Soyadı	Tuğba		KASAP
Doğum Yeri ve Yılı			
Bildiği Yabancı Diller	İngilizce		Almanca
Eğitim Durumu	Başlama - Bitirme Yılı		Kurum Adı
Lise	2003	2007	Manisa Süper Lisesi
Lisans	2007	2009	Trakya Üniversitesi
	2009	2011	Bursa Uludağ Üniversitesi (Yatay Geçiş)
Yüksek Lisans	2016	2023	Bursa Uludağ Üniversitesi
Doktora	-	-	-
Çalıştığı Kurum (lar)	Başlama - Ayrılma Yılı		Çalışılan Kurumun Adı
1.	2012	2015	Van – Çaldıran Osmanlı Ortaokulu
2.	2015	2017	Bursa – Gemlik Mesleki ve Teknik Anadolu Lisesi
3.	2017	Halen	İstanbul – Hasan Ali Yücel Ortaokulu
Üye Olduğu Bilimsel ve Meslekî Kuruluşlar	-		
Katıldığı Proje ve Toplantılar	Tübitak ve E- Twinning Türkiye Projeleri		
Yayımlar:	-		
Diğer:	-		
İletişim (e-posta):			
		Tarih	
		İmza	
		Adı-Soyadı	Tuğba KASAP