



**T.C.**

**BURSA ULUDAG UNIVERSITY**

**INSTITUTE OF EDUCATION SCIENCES**

**FOREIGN LANGUAGE EDUCATION**

**DEPARTMENT OF ENGLISH LANGUAGE TEACHING**

**TRANSFORMING RECEPTIVE VOCABULARY KNOWLEDGE INTO PRODUCTIVE  
VOCABULARY THROUGH ICT TOOLS AND INVESTIGATION OF STUDENTS'  
VIEWS**

**MASTER'S THESIS**

**LOKMAN ALTUN**

**BURSA**

**2019**





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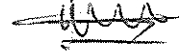
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## BİLİMSEL ETİĞE UYGUNLUK

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

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Lokman ALTUN

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“Transforming Receptive Vocabulary Knowledge into Productive Vocabulary Through ICT Tools and Investigation of Students' Views” adlı Yüksek Lisans tezi, Uludağ Üniversitesi Eğitim Bilimleri Enstitüsü tez yazım kurallarına uygun olarak hazırlanmıştır.



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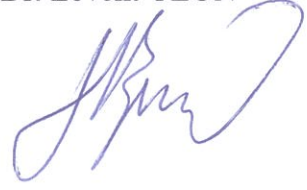
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**EĞİTİM BİLİMLERİ ENSTİTÜSÜ MÜDÜRLÜĞÜNE**

Yabancı Diller Eğitimi Anabilim Dalı'nda 801793007 numara ile kayıtlı Lokman Altun'un hazırladığı "Transforming Receptive Vocabulary Knowledge into Productive Vocabulary Through ICT Tools and Investigation of Students' Views" konulu Yüksek Lisans Tezi çalışması ile ilgili tez savunma sınavı, 12 / 09 / 2019 günü 16:00-17:00 saatleri arasında yapılmış, sorulan sorulara alınan cevaplar sonunda adayın tezinin/çalışmasının (başarılı/başarısız) olduğuna (oybirliği/oy çokluğu) ile karar verilmiştir.

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### **ALGISAL KELİME BİLGİSİNİN ÜRETKEN KELİME BİLGİSİNE DÖNÜŞTÜRME ÜZERİNE BİR ÇALIŞMA VE ÖĞRENCİLERİN GÖRÜŞLERİNİ ARAŞTIRMA**

Günümüz dünyası eğitimi de içine katarak teknolojik gelişmelerle birlikte sürekli bir şekilde değişiyor. Bu değişim akımının sonunda, öğretim stratejileri de doğal olarak değişikliğe uğramaktadır. Bu gerçeği göz önüne alarak, bu çalışma *Quizlet* ve *Word Art* araçlarını kullanarak öğrencilerin kelime bilgilerini geliştirmeyi aynı zamanda *Quizlet* aracının öğrencilerin algısal kelime öğrenimi üzerindeki etkisini görmeyi de amaçlamıştır. Bu bağlamda, *Word Art* aracı öğrencilerin üretken kelime bilgisini arttırmak için kullanıldı, ve araştırmacı bu BIT araçlarının öğrencilerin sözcük yoğunluklarına etkisini de araştırmayı amaçlamıştır. Bu çalışma bir devlet üniversitesinde 70 orta seviye öğrenci ile 11 hafta boyunca uygulandı. 1 ana grup altında 3 alt

grup oluşturuldu. Bütün gruplar hedef kelimeleri doğrudan öğrendi ama sonraki 5 hafta *Word Art* aracı yardımıyla kelimeler pratik edilirken, ilk 6 hafta süresince, bütün hedef kelimeler *Quizlet* aracı ile pratik edildi. Bu çalışmada karma yöntem tek grup araştırma yöntemi kullanıldı. Nicel veriyi toplamak ve BIT araçlarının öğrencilerin kelime bilgisi üzerindeki etkisi için, ön test ve son test uygulandı ve veriler IBM SPSS 25 programı ile betimleyici istatistikler ve tek yönlü varyans analiz kullanılarak önemli bir fark olup olmadığı kontrol edildi. Buna ek olarak, araştırmacı öğrencilerin sözcük yoğunlarını hesaplamak için ön yazma, son algısal ve son üretken yazı testlerini uyguladı ve <http://www.analyzemywriting.com> yardımı ile sözcük yoğunlukları analiz edildi. *Quizlet* ve *Word Art* araçlarının hedef kelimelerin kullanıp kullanılmadığını kontrol etmek için, bütün yazılar AntConc kullanılarak analiz edildi ve katılımcılar tarafından kullanılan hedef kelimeler belirlendi. Son olarak, nitel veriyi toplamak ve öğrencilerin BIT araçlarına ve derse karşı yaklaşımlarını belirlemek için 10 katılımcı ile röportaj yapıldı. Bu röportajlar içerik analizi kullanılarak analiz edildi. Bu tezin sonuçları, BIT araçlarının öğrencilerin kelime bilgisi ve sözcük yoğunluğunun geliştirilmesi konusunda oldukça etkisi olduğunu gösterdi. Son test skorlarında ve sözcük yoğunluğu ortalama skorları arasında önemli bir fark bulundu. *Word Art* aracının *Quizlet* aracından hedef kelimeleri kullanma konusunda daha başarılı olduğu anlaşıldı. Bununla birlikte, bu çalışma öğrencilerin BIT araçlarına karşı pozitif bir yaklaşımı olduğunu ve öğrencilerin BIT araçlarını eğlenceli ve ilgi çekici bulduğunu gösterdi.

*Anahtar Kelimeler:* BIT araçları, çevrimiçi eğitim, kelime bilgisi, algısal kelime, üretken kelime, sözcük yoğunluğu, İngilizce eğitimi, WEB 2.0 araçları



## Abstract

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Thesis : Transforming Receptive Vocabulary Knowledge into Productive Vocabulary through ICT Tools and Investigation of Students' Views

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### **TRANSFORMING RECEPTIVE VOCABULARY KNOWLEDGE INTO PRODUCTIVE VOCABULARY THROUGH ICT TOOLS AND INVESTIGATION OF STUDENTS' VIEWS**

Today's world has been continuously changing including education thanks to technological developments. As a result of this movement, teaching strategies have naturally undergone a change. By considering this, the objective of this present thesis is to integrate technology with vocabulary teaching process. Thereby, this study incorporates *Quizlet* and *Word Art* in order to improve vocabulary knowledge. This thesis also clarifies the effect of *Quizlet* on students' receptive vocabulary knowledge. Besides, *Word Art* has been used to develop students' productive vocabulary knowledge. The researcher also aims to see possible effect of ICT tools on students' lexical densities. All groups learned target vocabulary explicitly within a context and this context was provided by reading texts, listening texts and speaking models but for the first 6 weeks, they practiced all target vocabulary through *Quizlet* while they practiced all target

vocabulary through *Word Art* for the other 5 weeks. The treatment lasted 11 weeks with 70 students at a state university; one group with three subgroups was created. Mixed method one group research design was used in this thesis. In order to collect quantitative data, pretest and posttest technique was applied in order to see to find out whether there is an effect of ICT tools on students' vocabulary knowledge with the help of SPSS 25. By using SPSS 25, descriptive statistics of pretest and posttest scores were calculated and ANOVA was applied to find out significance value of both tests. Furthermore, the researcher applied pre writing, post receptive and post productive writing tests to identify students' lexical density thanks to <http://www.analyzemywriting.com>. To check whether students used target vocabulary after *Quizlet* and *Word Art* treatments, all writings were again analyzed via AntConc and target vocabulary used by the participants were determined. Finally, interviews were conducted with 10 students in order to collect qualitative data to identify the students' perceptions towards the course and ICT tools. These interviews were analyzed by using content analysis. The results of this thesis showed that ICT tools were greatly effective in developing vocabulary knowledge, and also lexical density. A significant difference was found in posttest scores and lexical density mean scores. *Word Art* was more successful than *Quizlet* in terms of using target vocabulary in writing; besides, this study pointed out that students have positive perceptions towards ICT tools and they found ICT tools enjoyable and mostly attractive.

*Keywords:* EFL learners, ICT tools, vocabulary knowledge, receptive vocabulary, productive vocabulary, lexical density, WEB 2.0 tools

## TEŞEKKÜR

Öncelikle hem ders hem tez sürecinde bana her yönüyle yardım sağlayan, tez sürecimini bu şekilde ilerlemede uzmanlığı ve yardımlarıyla en önemli paya sahip kişi olarak Doç. Dr. Levent UZUN hocama çok teşekkür ederim; gelişim sürecime olan yardımları, desteği ve tezimi uygulama safhasında uzmanlığı için ve de öğretmen olarak gelişimime yaptığı katkılardan dolayı kendisine çok müteşekkirim.

2 yıl süresince derslerine katıldığım, yardımlarını gerektiğinde esirgemeyen ve gelişim sürecinde bizlere birçok katkısı olan Uludağ Üniversitesi İngiliz Dili ve Eğitimi bölümündeki hocalarımıza teşekkür ederim.

Gerek tez sürecinde gerekse tez sonrasında hiçbir zaman desteklerini esirgemeyen Prof. Dr. Turan Parker'e çok teşekkür ederim.

Bu süreçte bana desteklerini esirgemeyen ALTUN ailesine, beni bu sürece takdir ve destekleriyle girmemi sağlayan Osman ŞAHİN olmak üzere babam Osman ALTUN, annem Şenel ALTUN'a teşekkür ederim.

Özetle, bu süreçte her türlü; az veya çok; yardımını, fikirini, desteğini esirgemeyen herkese teşekkürü borç bilirim.

Lokman ALTUN

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## TABLE OF CONTENTS

BİLİMSEL ETİĞE UYGUNLUK SAYFASI .....	i
YÖNERGEYE UYGUNLUK SAYFASI .....	ii
JÜRİ ÜYELERİNİN ONAY SAYFASI .....	iii
ÖZET .....	iv
ABSTRACT .....	vi
TEŞEKKÜR .....	viii
TABLE OF CONTENTS .....	ix
LIST OF TABLES .....	xii
LIST OF FIGURES.....	xiii
CHAPTER 1: INTRODUCTION.....	1
1.1. Background to the Study.....	1
1.2. Statement of the Problem.....	6
1.3. Research Questions.....	8
1.4. Aim of the Study.....	8
1.5. Significance of the Study.....	9
1.6. Assumptions.....	11
1.7. Definitions.....	12
CHAPTER 2: LITERATURE REVIEW.....	13
2.1. Vocabulary.....	13
2.2. Vocabulary Teaching.....	17
2.3. Vocabulary Knowledge in Writing.....	26
2.4. Receptive Vocabulary.....	27

2.5. Productive Vocabulary.....	29
2.6. Receptive Vocabulary vs Productive Vocabulary.....	31
2.7. Technology in Education.....	36
2.8. Mobile Assisted Language Learning.....	38
2.9. Computer Assisted Language Learning.....	39
2.10. Efficiency of CALL.....	41
2.11. CALL in Turkey.....	44
2.12. CALL and Vocabulary.....	46
2.13. Web 2.0 Tools.....	48
2.14. Writing.....	51
2.15. Writing Difficulties.....	52
<b>CHAPTER 3: METHODOLOGY:</b> .....	<b>54</b>
3.1. Research Design.....	54
3.2. Participants.....	56
3.3.1 Materials/Instruments.....	57
3.3.1.1 Pretest and Posttest.....	57
3.3.1.2 Prewriting, Post Receptive and Post Productive Writing.....	58
3.3.1.3 Interview.....	59
3.4. Procedure.....	61
3.5 Data Analysis.....	65
<b>CHAPTER 4: Results and Finding</b> .....	<b>65</b>
4.1. Quantitative Results.....	66
4.1.2. The summary of the quantitative findings.....	73
4.2. Qualitative Results.....	74
4.2.1. The first interview question.....	74

4.2.2. The second interview question.....	76
4.2.3. The third interview question.....	78
4.2.4. The fourth interview question.....	79
4.2.5. The fifth question.....	82
4.2.6. The sixth interview question.....	83
4.2.7 The seventh interview question.....	85
4.2.8. The summary of the qualilitative findings.....	88
CHAPTER 5: Discussion.....	89
5.1. Overview.....	89
5.2. Discussion of Findings with Relation to the Research Questions.....	89
5.2.1. Discussion of the first research question.....	90
5.2.2. Discussion of the second research question.....	90
5.2.3. Discussion of the third research question.....	91
5.2.4. Discussion of the fourth research question.....	91
5.2.5. Discussion of the fifth research question.....	92
CHAPTER 6: Conclusion.....	94
6.1. Overview of the Study.....	94
6.2. Conclusion.....	95
6.3. Limitations of the Study and Suggestions for Further Studies.....	99
References.....	100
Appendix.....	131
CV.....	134

## LIST OF TABLES

<i>Table</i>	<i>Page</i>
1. <i>Principles of Vocabulary Teaching</i> .....	22
2. <i>Factors and implementations of productive activities</i> .....	25
3. <i>Three approaches of CALL</i> .....	41
4. <i>Significance Value of Pretest and Posttest</i> .....	67
5. <i>Descriptive statistics of pretest and posttest mean scores of three subgroups</i> .....	68
6. <i>The frequencies of used receptive vocabulary in writings after Quizlet</i> .....	69
7. <i>The frequencies of used receptive vocabulary in writings after Word Art</i> .....	71
8. <i>Lexical densities mean scores of the three subgroups</i> .....	72
9. <i>Significance Values of Pre, Post Receptive and Productive Writings</i> .....	73
10. <i>The importance of vocabulary</i> .....	75
11. <i>Do you think that ICT tools help you?</i> .....	76
12. <i>How does it help?</i> .....	77
13. <i>Other strategies that students used to improve vocabulary knowledge</i> .....	78
14. <i>The advantages of Quizlet</i> .....	80
15. <i>The disadvantages of Quizlet</i> .....	81
16. <i>The advantages of Word Art</i> .....	82
17. <i>The disadvantage of Word Art</i> .....	83
18. <i>The advantages of Word Art activities</i> .....	84
19. <i>The disadvantage of Word Art activities</i> .....	85
20. <i>The advantages of Quizlet activities</i> .....	86
21. <i>The disadvantages of Quizlet activities</i> .....	87

## LIST OF FIGURES

<b>Figure 1:</b> <i>Aspects of Vocabulary Knowledge (Nation,2001, p.33-34)</i> .....	33
<b>Figure 2:</b> <i>The Relationship between Receptive and Productive Vocabulary Knowledge (Zhong, 2012, p.33)</i> .....	34
<b>Figure 3:</b> <i>The historical changes in Turkey in the field of ELT (Kırkgöz, 2007)</i> .....	45



## CHAPTER 1

### INTRODUCTION

#### **1.1. Background to the study**

Language education has always been depicted as an inspirational mental process for human brain taking into account the difficulties of grammatical structures, the amount of mental vocabulary list (Schwarz, 1992). Therefore, language education is a very complicated issue because students should be good at four skills which are listening, speaking, reading and writing because they are essential for language learners to use language effectively and efficiently (Farooq&Uzair-Ul Hassan, 2012). The importance of these skills cannot be ignored but all of these skills actually depend on having enough vocabulary knowledge. Vocabulary is at the center of language and has a key role for the language learners (Zimmerman, 1997). Richards (2002) points out that the importance of vocabulary is undeniable because it can be an obstacle for learners' speaking, writing, reading and listening skills". For instance, a person who goes abroad can communicate with limited vocabulary knowledge but grammar itself will not be sufficient to be able to interact. The reason for this problem is explained by Tömen (2016) that the fluency and proficiency of learners are also influenced by vocabulary knowledge.

Vocabulary knowledge has different definitions but it is basically defined as knowing a word in terms of form, meaning and use" (Nation, 2001). While the topic is vocabulary, two different aspects of vocabulary should be explained. Vocabulary knowledge itself divides into two aspects, receptive and productive vocabulary. Receptive vocabulary is basically known as recalling the word while listening or reading something. On the other hand, productive vocabulary is described as being able to use the word in productive skills in an accurate way

(Nation, 2001, p.24). Harmer (2007) also defines the receptive vocabulary as just processing the word instead of producing, while productive knowledge necessitates production like a speech or writing.

Vocabulary knowledge has direct effect on students' success. Academic vocabulary is the clear side of academic language and without being good at vocabulary knowledge; it will be always a barrier for students' success (Corson, 1997; Garcia, 1991; Snow & Kim, 2007). According to the studies of different researchers on four skills, lack of vocabulary knowledge affects students' success adversely (Hamouda, 2013; Solak&Altay, 2014). There is also a positive correlation between having enough vocabulary knowledge and the success of the learners' reading performance (Hu& Nation, 2000; Dang& Webb, 2014). Nation (2006), Hsueh-Chao and Nation (2001, p.144) also recommend at least approximate word number to understand an academic text. According to them, 8,000-word families should be known at least to translate the reading text mostly and this also exhibits the effects of vocabulary on reading.

With regard to these studies and ideas, the students should have very good vocabulary knowledge but teaching vocabulary needs a lot of time on its own (Longhurst, 2013) because the language learners should constantly update their vocabulary knowledge as the vocabulary knowledge is always changing and new words are always replacing the old ones which are not used anymore (Nation & Waring, 1997). Students have problems with memorizing the word, too (Read, 2000). Another problem about vocabulary knowledge is learning vocabulary in the native language (L1) is different from second language (L2) because L2 vocabulary learning process is much more intentional and challenging (Karakoç& Köse, 2017).

A very good question was asked about how learners should study vocabulary:

Should the learners study the vocabulary just to pass the exam and not even look at them one more time until the other exam comes or should they repeat the vocabulary all the time till they entirely send the vocabulary to their long-term memories? (Baturay ,2007, p.2)

This question leads us to the importance of teaching vocabulary. What teachers do in the classes is really crucial for efficient vocabulary teaching. Moreover, if a teacher wants to create suitable conditions for meaningful learning that happens when the learners try to make a relation between the new information with already learned information (Thelen, 1986), the schema of the lesson should be organized by taking care of giving the students the active role in the classes (Thelen, 1986, p.605). In short, new words have to be a component of the students' setting (Croll, 1971). Nagy and Townsend (2012) summarize all of these ideas that vocabulary learning has to happen in authentic circumstances which offer the learners lots of chances to realize how target vocabulary engage with, gather other meanings from, and aid meanings of other words.

These proposals show that the main procedure for the teachers should be that students need to learn the usage of the word in different specific contexts. This expectation reveals the importance of productive vocabulary knowledge because the main issue for the learners is knowing how to use any vocabulary within the text although the meaning of it is widely known by them. To improve this type of knowledge, Ahmad, Armarego, and Sudweeks (2017) pointed out the importance of usage of flashcards, monolingual dictionaries, and simple pictures.

However, these methods are old-fashioned at all because there is a new reality, technology, in our lives. Through technology, there is also a new coin "digital native" which was put forward by Prensky (2001). It can also be explained that there is a Generation Z which is

defined as being born with technology and raised with complicated technology. Hence, the present classrooms should be equipped with technology to fulfill Generation Z students' needs (Oblinger, Oblinger & Lippincott, 2005). This changing students' profile makes technology integration to our classes unavoidable. The reason is that with old traditional methods, present and tomorrow's students cannot be trained (Hogan, 2013).

Instead of using boring and insufficient traditional teaching techniques, making use of totally a new type of teaching naturally has become so popular in record time. These technological facilities have affected the type of vocabulary teaching, too. The reason for this can be explained that Information and Communication Technology (ICT) which is a sub-heading of technology usage in the classrooms offers us to improve both receptive and productive skills including vocabulary knowledge (Demirekin, 2014).

It has been seen that technological tools can be beneficial to solve the problems of learners' vocabulary usage productively. With the help of technology, today's students can be exposed to words in a different context and it enables the learners to activate their repetition mechanism which is required for vocabulary learning in a foreign language (Dinçer, 2014). Transforming receptive vocabulary knowledge to productive knowledge can also be supplied by technology by presenting a new word with all components online and giving chances to practice online which will appeal to present learners' vocabulary needs.

To be able to develop vocabulary knowledge, writing offers good opportunities to learners in terms of activating their productive vocabulary knowledge. Karakoç and Köse (2017) state that vocabulary has a crucial role in writing as it requires using the language actively. Technology also affects students' consciousness of writing because students feel comfortable while writing

online and this relaxing understanding causes them to produce more (Purcell, Buchanan, Friedrich, 2013). By looking at lexical density scores of students, it can be understood whether they are using content words efficiently or not. Lexical density traditionally is known measuring the rate of content words over total words (Eggings, 2004) and lexical density is larger in academic language ( Schleppegrell, 2001). Increasing lexical density also can be achieved by using ICT tools competently.

This study eventually will use two technological tools *Quizlet* and *Word Art* to develop the students' receptive and productive vocabulary knowledge. In fact, *Quizlet* is basically focused on increasing receptive vocabulary knowledge because it includes activities which help to improve receptive vocabulary knowledge by means of matching and finding the definition activities. On the other hand, *Word Art* which is a web-site to create word clouds stresses on production. Using this website, the vocabulary are presented as visual materials and the vocabulary are practiced with different production activities such as discussion, role-playing, story writing. When the effects of word clouds on vocabulary learning are analyzed (Dalton & Grisham, 2011; Gülcan, 2013; Mansouri, 2015; Miley & Read, 2011; Mahmoodi & Talang, 2013), it is seen that word clouds by emphasizing target words have a big effect on catching the learners' attention and making the learning permanent. These materials may motivate the learners and offer them more practical and useful vocabulary activities and turning receptive knowledge to productive can be ensured by this ICT tool.

## 1.2 Statement of the Problem

The significance of having sufficient vocabulary knowledge is proven by the previous researches. The researchers justify their ideas with different kind of examples and it seems to be clear that success in all of language skills can be achieved just with enough and various vocabulary knowledge. It shortly means that recognizing, comprehending and utilizing the vocabulary has a vital role in language learning (Sedau, 2004).

Nevertheless, language learners have real difficulty in increasing their vocabulary knowledge and using them actively in production activities. Even though they have enough receptive vocabulary knowledge which means to know just the meaning of a word, they cannot transform their receptive vocabulary knowledge to productive vocabulary knowledge, which being able to use early known words within a specific context efficiently. Vocabulary itself does not cause to use vocabulary knowledge actively, that's why, having a good receptive vocabulary knowledge does not inevitably imply that a learner can use that vocabulary accurately (Laufer & Goldstein, 2004).

Currently, it can be understood that learners should play an active role during the vocabulary acquisition process. They should not just learn the meaning of a word but also produce that word within different contexts by taking care of its form, meaning, spelling, etc. To be able to reach this goal, teachers have big responsibilities to shift this trend from non-active vocabulary acquisition to dynamic vocabulary acquisition process which demands from students to produce the words with various activities.

The educators can achieve their goals by making use of ICT tools which help the learners not only to learn every component of a word including spelling, pronunciation, meaning but also

utilizing the vocabulary with an accurate form. This benefit can be given to the learners thanks to ICT tools because they use authentic materials and establish a connection with forms, accents of the target language (Bal, 2019).

The learners will catch the opportunities to get exposed to every element of vocabulary and produce them in authentic contexts that increase their self-awareness about that word and capability of using them accurately in production activities. In this study, the researcher will conduct a research whether ICT tools will affect generally vocabulary knowledge of the students and also will try to seek whether word clouds will help the learners to turn their receptive knowledge to productive. *Quizlet* and *Word Art* are used in this study as web-sites. The former one generally focuses on receptive vocabulary knowledge by giving chances to practice the meaning of the word by matching, online flashcards, and collaborative game modes. It enables the learners to check a word's meaning, pronunciation, definition, and practice them online individually but also collaboratively. The students also get immediate feedback from the tool based on their answers. The latter one creates colorful and random size word clouds according to user's preference. The users can differentiate the custom, color, size of the word cloud and create very meaningful and attention-grabbing pictures for vocabulary activities. For the *Quizlet* part, the learners are supposed to match the vocabulary and find the definition of the word with their friends while the *Word Art* part asks the students to use the words with production activities based on the created word cloud. Thus, the objective of this study is mainly to improve their vocabulary knowledge. This study also aims at transforming the receptive knowledge to productive because as Henriksen (1999) said that this transformation can be achieved if the learners actively take part in using recognized and new words within production activities.

### 1.3 Research Questions

1. To what extent do *Quizlet* and *Word Art* contribute to the vocabulary knowledge of the students?
2. Is there any difference among the three groups regarding receptive vocabulary knowledge after the treatment based on post receptive writing in terms of target vocabulary usage?
3. Is there any difference among the three groups regarding productive vocabulary knowledge after the treatment based on post productive writing in terms of target vocabulary usage?
4. To what extent do *Quizlet* and *Word Art* contribute to the students' writing performance in terms of lexical density based on pre, and post receptive and post productive writing?
5. What are the views of the students about *Quizlet* and *Word Art*?

### 1.4 Aim of the Study

The objective of this thesis is to improve the students' vocabulary knowledge with the help of ICT tools which provide the learners with enough comprehensible input and opportunity to practice target vocabulary online in various context. Besides, this thesis also aims to transform the receptive knowledge of students to productive by using production activities which are supported by the word clouds. As a result of this aim, lexical density mean of each writing treatment was calculated with regard to whether the treatment has affected their writing or not. As the third aim of this thesis, the researcher aimed to learn the participants' perceptions towards *Quizlet* and *Word Art*.

This study will use online flashcard of vocabulary and production activities based on the word clouds and two web-sites will play an active role in this study to practice early taught vocabulary online instead of using traditional teaching methods within the main course book as



these activities are not enough stimulating for the learners. Since these tools do not help the learners in terms of playing active role in acquiring vocabulary and turning receptive knowledge to productive, ICT tools which can present all components of vocabulary online and give chances to practice whenever and wherever they want, get immediate feedback, and allow them to reflect the receptive knowledge in production activities will replace the main course book.

Doing traditional activities in a written way such as matching, finding the definition, fill in the blanks will cause problems like getting bored or sitting activities out. Therefore, students do not want to take part in the classes actively, and they do not want to be a part of these kinds of activities. With regard to these problems, this thesis will propose the learners to acquire pronunciation, spelling, L1 and L2 definition, antonym or a synonym of the words by practicing personally or with their friends online and get a chance to use these acquired words in production exercises with the attractive and modern way of visuals. Young (2003) stated that technology changes the way of learning by implementing learning strategies experientially, exploring and participating enthusiastically instead of traditional ways and these benefits give rise to critical thinking, problem-solving and communication skills.

The final target of this thesis is to reveal the effect of *Quizlet* and *Word Art* on the vocabulary knowledge of students and turning their receptive knowledge to productive as well as to learn their perceptions towards these ICT tools.

### **1.5 Significance of the Study**

It has already been known and accepted by everyone that nowadays students are totally different from the old generation. The interests, hobbies, learning methods or strategies, motivation, ideas have big differences and teaching English to this updated generation by using

out-of-date and boring activities and methods will be terrible for EFL education. This new type of students, who are learning fast, can reach everything easily, get used to playing games rather than sitting on their chairs need differences but course books fall short of the mark.

The adaptation of the teachers is indispensable because digital natives are expecting from their teachers to offer them bring the digital life to the classes. They want to see every element of language and reach everything whenever they want. According to Yılmaz (2014), 21st century teachers should realize this changing era and need to improve and update their knowledge of inventive ways according to the needs of this era. They must be original, creative, and intelligent to make a connection with the digital natives (Uzun, 2012; Uzun, Çetinavcı, Korkmaz& Salihoğlu, 2013; Uzun, 2015; Uzun, 2017). Traditional methods and adapting them to the new and innovative teaching techniques should be used together. They need to be ready for new tasks, leading and mastering applicable tools. This type of teaching strategy and teacher help the learners to get contact with language easier and motivation of them towards learning the language will, in turn, increase.

On the other hand, old type of vocabulary activities will limit the learners' learning as they can just see and practice that vocabulary within the book, and they do not have the chance to differentiate their vocabulary knowledge and use them in production activities yet ICT tools enable them lots of materials which are always reachable and offer all components of the vocabulary online whenever they want; this can help them to be autonomous learners.

This study is significant because it uses two website tools, *Quizlet* and *Word Art* for education and incorporating them into real classroom environments with the purpose of improving L2 vocabulary as well as writing. Instead of old traditional and written type of

activities, using online flashcard programs and attractive word clouds may change the mood of the class and it may make the learners' task easier in terms of vocabulary learning.

This study can be a good model for the teachers who are unable to integrate ICT tools to their classes because this study includes examples how technology can be used to enhance and transform receptive knowledge into productive knowledge in terms of foreign language vocabulary and writing education. The teachers insist on using traditional activities can get inspired when they examine the usage of ICT tools. Therefore, they can boost the students' attitudes towards vocabulary learning.

Not only the teachers but also decision-makers can get inspired from this study since a few studies about increasing vocabulary knowledge and being able to use early acquired vocabulary within different context accurately through ICT have been conducted so far in Turkey. This thesis comes up with new ideas and the policymakers can encourage similar studies or technology applications to be tried in the language classrooms. Based on their assumptions, instead of applying old methods, integrating ICT tools to the whole language learning process or just vocabulary learning can be provided by the policymakers in Turkey.

## **1.6 Assumptions**

1. Vocabulary which is chosen to teach and practice is assumed to be suitable for the proficiency level of the learners.
2. All participants are assumed to become a part of this study voluntarily to improve their vocabulary knowledge.

3. Using ICT tools to teach vocabulary for one lesson hour per week is assumed to be enough to give opportunities to the learners to increase their receptive and productive vocabulary knowledge.
4. Applying the two technology tools, *Quizlet* and *Word Art*, in classes during one academic term is assumed to enable the students to learn and practice the vocabulary and give them enough time to be able to check whether there is any difference between the beginning and at the end of the treatment process.
5. The participants are assumed to take part in word cloud activities willingly and try to use the target vocabulary presented by the word clouds in production activities.

### **1.7 Definitions**

ICT: It means Internet and Communication Technologies; a web-site, an online program or application can be considered as a part of ICT. It helps the learner to benefit from technology in every part of our lives to make it better (Bal, 2019, p.14).

Receptive Vocabulary: It can be defined to be able to recognize the words even though a person cannot use it productively (Burger&Chong, 2011).

Productive Vocabulary: Learners can produce early recognized words as well as comprehending them when used by the others (American Psychology Association, 2019).

Lexical Density: It is the ratio of the content words to the total words in writing. It gives us a clue about the level of students' vocabulary knowledge (Tömen, 2016, p.5).

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Vocabulary

Vocabulary has always been indispensable part of a language. Every language has unique words that someone knows or uses and it has very critical role in languages. Harmer (1983) explains the importance of vocabulary very well by declaring that vocabulary itself constitutes vital organs and the flesh if skeleton of the language forms the language systems.

If a person knows more words, a person can have a clear idea about the world and speak more than the others. If a person knows scarlet, crimson, azure and indigo, he/she can have a different and more idea about colors than a person who knows just red and blue.

There are two worlds thanks to words: the more words we have, the more complex ideas we can have about the world. (Stahl & Nagy, 2007, p.5)

Word knowledge itself is a very broad term and very difficult to define it. Kaivanpanah and Zandi (2009) declared that to be able to define is the first difficult thing for vocabulary knowledge. This difficultness of defining vocabulary knowledge is caused by the nature of vocabulary because vocabulary cannot be explained just by one aspect. Henriksen (1999, p. 308) claims that the nature of vocabulary knowledge is on the basis of ongoing and multidimensional aspects. He exemplifies his idea by stating that lexical competence has three dimensions such as from part to specific knowledge, depth of knowledge and using the word productively and receptively. Qian and Schedl (2004) also support Henriksen's idea and express that vocabulary knowledge cannot be recognized as single dimension anymore because it constructs multidimensional aspects. Nation (2001, p.24) divides vocabulary knowledge to two sides as

“breadth of vocabulary” and “depth of vocabulary”. He continues his claim by explaining these two terms and says that breadth of vocabulary is about how many words a learner knows at a certain language proficiency level while depth of vocabulary is about knowing a word very well. In short, the former is about quantity but the latter is about the quality of a word.

In addition to Nation’s division, fluency is proposed by Daller, Milton &Traffers-Daller (2007) as another side. It clearly distinguishes the word a learner can reach and knowing how to use it in a statement. It explains more by stating that a learner can talk fluently without stopping and this is considered as highly communicative but the other learner’s communication always stops because of some difficulties at reaching the suitable word.

Antonacci and O’Callaghan (2011) summarize what other teachers think about the definition of word knowledge by stating that different instructors put an effort to define the word knowledge term and define it as “the recognition of written words”. Other teachers consider it as “understanding the meaning of words”. Other listening teachers perceive vocabulary as “understanding the vocabulary which they hear in the spoken language”. “Academic vocabulary” is defined as specific words within a context. When studies are analyzed, academic word studies can also be separated into two different groups. The first group is generally focused on general or cross-discipline groups. The second group concentrates on a specific discipline academic words such as math or science academic vocabulary (Nagy& Townsend, 2012, p. 91).

After the examination of the definition of word knowledge, the other critical issue is what knowing a word is. The reason is that vocabulary knowledge includes written and spoken form a word, grammatical function of a word, collocational forms a word, the frequency of a word, register of a word, notional meaning of a word, and connection of a word with other words

(Nation, 2001, p.23). As this issue pays attention enough, different researchers try to explain what the aspects of knowing a word. Cronbach (1942, p.212) puts forward five different aspects: generalization, implementation, breadth, exactness and accessibility. Generalization can be explained as the definition of a word. Implementation is to be able to choose and identify situations to use a word suitably. Breadth means knowing other meanings of a word. Exactness is defined as using a word accurately and accessibility is described as to be able to use a word in a specific conversation. Richards (1976, p.78) also defines what knowing a word is :

1. Different from syntax, vocabulary always grows up even in adulthood but it does not increase a lot in adult life.
2. Knowing a word means to be able to guess how that word can encounter in written and spoken context. We also should know what other kind of words related to that word can be used in that context.
3. Words has some limitations while using it within a context because of its function and situation and learners should be knowledgeable about these limitations.
4. Knowing a word is to know the syntax of that word.
5. It is absolutely known that word has an underlying form and it has a diversion side which means lots of words can be produced from it.
6. Knowing the lexical aspect of a word and other words in a language are essential.
7. Knowing a word semantically is required to know a word.
8. Various meanings can be provided just by a word in a language and the learners should know these meanings involved with that word.

Having a range of vocabulary knowledge in different contexts offers us better opportunities and helps us to look at the world from a different perspective. While vocabulary has a really crucial role in the languages, it also has an essential function in the foreign language. Learning vocabulary is a very long and tiring procedure but it is important to learn not only foreign language but also native language (Karatay, 2007; Kavcar, Oğuzkan & Sever, 1995; Sever, 2000). Vocabulary knowledge is required and compulsory structure of a foreign language (Milton, 2009). Word knowledge has different good parts such as being able to remember meaning, deducing the meaning, understanding the text and communicating verbally. Especially for an understandable and meaningful communication in second language (L2), good vocabulary knowledge is fundamental. Vocabulary is considered as fundamental for communication because vocabulary has a key role in second language acquisition (Bowen & Marks, 1994). Spada and Lightbown (1999) shed light on this topic and indicate that having divergent vocabulary knowledge allows people to interact with each other who have a common interest. When some researches compared native and non-native speaker interactions (Braid, 2002; Burt, 1975), it was precisely seen that having good vocabulary knowledge and using it appropriately provide prosperous communication for native and non-native speakers. McCarthy (1990) also defends the importance of vocabulary in communication by claiming that L2 communication cannot be understood very well unless the words express a large number of meanings even though that speaker is very good at learning grammar or being excellent at pronunciation of L2. Gorjian, Moosavinia, Ebrahimi, Kavari, Asgari, and Hydareh (2011) underline the significance of vocabulary learning by telling that students can develop their productive and receptive skills and learning vocabulary give them a chance to develop their awareness and production in L2. These statements once again make the importance of vocabulary clear again.



Vocabulary also serves language proficiency and its subskills. Vocabulary learning is the center of not only reading and listening also speaking and writing (Taylor, 1990). In order to speak, listen, read and write efficiently, vocabulary knowledge is a key component of language proficiency (Richards, 2002). It can be said that vocabulary is the heart of foreign language learning. Moeller, Ketsman and Masmaliyeva (2009) explains how the vocabulary is a must for language learner by stating that vocabulary is at the center of foreign language learning and teaching because any language learner can reach oral or written type of communication with the help of a good vocabulary knowledge. Ahmad (2012) also shares his idea by telling that rich vocabulary knowledge enables learners to promote not merely writing effectively but also speaking fluently. It is also basic piece of language to master language skills and to help the learners to comprehend written and spoken texts easily (Viera, 2017). Krashen (1989 cited in Mansouri, 2015, p.42) points out the importance of vocabulary knowledge in second language learning very well by stating that people take dictionaries with them instead of grammar books while they are traveling to a foreign country.

## **2.2 Vocabulary Teaching**

As the vocabulary knowledge has really crucial role in language learning, teaching vocabulary also is placed a particular importance. Throughout years, vocabulary learning is vital feature of a foreign language teaching (Harley, 1996). Lots of different methods and approaches in teaching foreign language have been applied in relation to various aims, style, understanding, necessity of that age and context and society (Felder& Brent, 2005; Castello, 2015) . Each learner has unique way to learn long word lists such as checking dictionary by looking up the meaning, learning the meaning of that word from a native speaker but these weak strategies does not

answer the purpose. Some strategies to effective vocabulary learning and teaching are proposed by Texas Reading Initiative (2002, p.16):

- Teachers should encourage students to read more.
- Students should be forced to be at places which help them to improve their language skills.
- Students should increase their awareness about vocabulary.
- Especially for new starter learners, some vocabulary should be taught explicitly.
- Teachers should inform students about how they can use their learning vocabulary strategies freely and teachers should be a good model for them.

These strategies were just general advice in terms of vocabulary for language learners. As the vocabulary is natural component of a foreign language, starting with the examination of approaches being used in language teaching field briefly is indispensable. There has been changing trend in this field for years. In fact, the instructors favored to teach language rules firstly. Natural process of language was not paid attention early on those days. As a result of this belief, Grammar- Translation Method came into prominence initially. It was a reform for language teaching because the aim of this method was to make the language learning easier with the help of examples not just by emphasizing the text itself (cited in Schmitt, 2000). A deductive teaching style was applied in this approach by focusing on mostly the rules of foreign language thanks to translation exercises. Solak (2006) also clarifies this approach by stating that the language learners generally spend their times to look at the meaning of the word, translating the text or learning by heart the word lists. Having been introduced this method, Richards and Rodgers (2001) presented three different language views: structural, functional and interactional. From now on, each method being applied in the language teaching field is based on these views.

Audiolingual Method, Total Physical Response and the Silent Way are the basic models of structural view. Indeed, structural view that is the most traditional view puts forward the idea of code meaning which is related to the structural elements. They explain functional view by stating that this view aims communicative and semantic functions together rather than just taking care of grammatical and structural elements of a language. Communicative Language Teaching comes in sight as a result of this view. The last and the latest trend is interactional view which tries to stress on the relations among individuals. Whole Language, Cooperative Language Learning and Content-Based Instruction and Task-Based Instruction can be considered as the examples of this idea.

In fact, several methods have been implemented in foreign language teaching for years, and vocabulary teaching has always been one of the most significant parts of this field (Arslanoğlu, 2015). Krashen (1989) explained the Natural Approach and he claimed that comprehensible and meaningful input was really significant rather than structural accuracy and this approach caused a shift from grammar to vocabulary teaching. After that, lexical Approach (Lewis, 1983) took part in the literature. She said that vocabulary was absolutely a crucial and main part of language proficiency as lexical phrase and chunks were needed to produce something and increase the proficiency level. It was pointed by Nation (2001, p.60) that “not only paying attention directly to vocabulary but also appropriate strategies boosted vocabulary learning.” Hunt and Beglar (2002) came up with a new idea. They contributed to the literature by defending the efficiency of dictionary learning. According to them, dictionary learning was a functional way to teach vocabulary especially bilingual dictionaries since these kinds of dictionaries offered the learners not merely the synonym of that word in native language (L1) but also the definition of that word in L2 with a good example. Çerçi (2009) explained Suggestopedia and summarized this approach

by expressing that the focusing point of this method was the reasons which blocked students' language learning and their self-confidence. The importance of vocabulary was explained in this approach and teaching area was so important rather than teaching vocabulary explicitly.

Gömleksiz (2007) gave evidence about the ineffectiveness of traditional methods comparing to modern strategies. He conducted a study and the study was about the influence of traditional and Jigsaw II activities on Turkish engineering students' vocabulary knowledge and the acquisition of active-passive voice. According to results, traditional methods caused passive behaviors of students. Based on t-test for post-test scores, experimental group who used Jigsaw II activities while learning English did really better than the other traditional teacher-based method.

Young-Davy (2014) declared explicit instruction which was used as a very effective way to teach vocabulary for years and shows the importance of explicit teaching by stating that explicit teaching has lots of effects in the classroom. As this strategy displays more necessary and suitable vocabulary, this presents more possibilities to us. It also increases the students' awareness in terms of vocabulary knowledge and using it in writing. However, some researchers (Ford, Johnston, Mitchell & Myles 2004; Lightbown&Spada, 1999) claim that teaching vocabulary is not paid attention a lot while acquiring second language. Even O'Dell (1997) says that vocabulary was not a part of curriculum or syllabus throughout 1970's and 1980's.

One is a product of the structural and other approaches to language teaching that have become highly pervasive in language teaching and also learning vocabulary is an unsystematic thing so, vocabulary learning is not so problematic issue for academic world. Second reason is about teachers' beliefs. Teachers generally believe that with limited vocabulary knowledge, proficiency in language learning can be reached. . It is believed that the third reason is time.

The time which is spent for explicit vocabulary is wasted because according to Harris&Snow (2004), not so much words can be acquired by direct instruction such as learned and taught. Ellis (1994) also believes that people generally acquire the words incidentally not deliberately. That's why there is no need to teach vocabulary because the learners get that knowledge from outside as an oral input. (Milton, 2009, p.1)

In the light of this information, researchers make an effort to pick up the most useful method with regards to vocabulary teaching. Choosing the best method to be able to use in the class is an obstacle for the teachers because performing the best method depends on a great deal of factors which have an impact on students' vocabulary learning (de Groot, 2006). Schmitt (2008) explains who or what can have an influence by expressing that students, teachers, material writers and researchers are seen as four vocabulary learning partners and these partners play a key role in teaching and learning process by fostering sufficient vocabulary learning. Dinçer (2014, p.9) explains two very important sides for an effective vocabulary teaching. First side is achieving a full and true explanation of the meaning of the word is a necessity. Second side is teaching environment should be prepared appropriately to raise students' success. The former side is about accuracy while the second one is directly related to fluency. Within this respect, various principles are suggested to make the vocabulary teaching process in the practice. Stahl and Fairbanks (1986) were seen as a pioneer of the principles of an effective vocabulary instruction. His study analyzed the effects of vocabulary instruction on meaning and drew attention three principles for a powerful vocabulary instruction. Definitional and contextual information should be taught at the same time as a first principle. Secondly, instruction ought to strengthen depth of processing. Lastly, it should facilitate to encounter a variety of words.

Thornbury (2002) and Brown (2002) propose other principles for beneficial vocabulary teaching.

The table below presents us the principles of them;

*Table 1*

*Principles of Vocabulary Teaching (Thornbury, 2002; Brown, 2002)*

	Repetition	Retrieval	Spacing
Thornbury (2002)	Utilize	Mental Depth	Personal forming
	Imaging	Reminder	Motivation
		Attention	
Brown (2002)	Spontaneous	Purposeful Learning	Expectation of gift
	Inner Motivation	Strategic Contribution	Language Ego
	Self-esteem	Taking risk	Culture Language Connection
The Effect of Native Language			

Zimmerman (1997) also defends the idea of Brown (2002) about the principles and claims that vocabulary learning consists of remembering information, understanding, trying to guess the meaning and communication orally and in a written way and the combination of these skills creates vocabulary learning.

After the principle ideas, approaches have started turning out. Being affected by these principles, researchers put forward different vocabulary teaching approaches. Hunt and Beglar (2005) again take the lead. They recommend three approaches to the researchers. Incidental learning which aims at learning or teaching the vocabulary without consciously while listening or reading is proposed as a first approach. Incidental learning can be defined as learning the vocabulary thanks to any activity without any explicit instruction (Robinson, 2001). Independent strategy development teaches students how to predict the meaning of words from a context, how to keep them in your mind, and remember them when you see them again in a new context.

Explicit instruction is the last proposal and teachers' objective for this approach is to choose just the target words and teach them to learners directly. Indeed, this instruction type can be thought as making lexical knowledge to mind (Robinson, 2001, p. 292). Chacón-Beltrán, Abello-Contesse and del MarTorreblanca-López (2010) have parallel idea. According to their claims, especially two productive areas are provided by vocabulary teaching. First area is to use extensive reading texts for teaching, which is just the beginning of contextualized and real-life examples of language including suitable vocabulary. The second one is like explicit approach and it claims that in this approach should teach carefully selected vocabulary by considering the relevance criteria, frequency and being useful to perform better in specific tasks. To be able to use these approaches more efficiently, some important strategies and techniques are also presented. Hill and Laufer (2003) shed light on the effectiveness of vocabulary teaching tasks by asserting that the words need to be relevant with activity and the task should prompt this relevance. This is very significant component while deciding the effective vocabulary teaching task. In fact, finding up-to-date texts including meaningful words should be brought to the classrooms and these words that are used within that context ought to be practiced (Beck, McKeown & Kucan, 2002; Fang & Schleppegrell, 2008; Zwiers, 2013). Diab, Abdel-Haq and Aly (2018) have very good strategies how vocabulary needs to be taught to make reading and listening skills easier for the students. The summary of a listening text generally consists of activities such as listening and filling in a table, matching a picture, finding out the location, speaker, and places, ordering the actions etc. so, teachers must emphasize the new vocabulary within the listening text and help them to understand the vocabulary by utilizing pictures, giving examples. Asking key vocabulary before reading process and asking questions about those key words as pre-reading questions are the practical tactics for the teachers.

Another key issue about vocabulary teaching is to be successful at using vocabulary knowledge in practical terms. L2 learners should know how to practice acquired vocabulary knowledge appropriately (Hinkel, 2004). To provide efficient transfer from acquired vocabulary knowledge to practice, there is a necessity. This necessity is explained by Clarke (1980) as short-circuit hypothesis. This hypothesis points out the importance of having enough vocabulary knowledge to transmit L1 skills to L2. Integrating existing knowledge to practice has been remarked by different researchers.

Learners should integrate new words into their existing knowledge. To be able to assure retention in the long run and remember, different activities should be exposed to the learners to place newly acquired words in their long term memories. (Thornbury, 2002, p.22)

Demir (2016) looks at this topic from a different perspective and claims that if the learners would like to say that they exactly “know” these words, these words should be involved in various contexts. That’s why presentation and practice should track each other. Then, just acquired vocabulary can be turned into practical knowledge with the help of these ideas. Moreover, not knowing how to use these words in the sentences means just memorizing them not learning (Andrews, 2018). As a result of this necessity, the researchers have started suggesting new methods how students can transform their receptive knowledge to productive knowledge because transforming the vocabulary knowledge to productive knowledge is one of the most important issue. Thornbury (2002: 100) categorizes tasks into two groups as decision making and production tasks. The first one consists of activities which need to identify the words, remember and match them also classify them but there is no production within these kinds of tasks. The second type of tasks requires production of newly taught words in speaking or writing activities. Completing sentences or producing new sentences or tasks are seen as the best examples of these



tasks. Faraj (2015) explains how receptive vocabulary knowledge transform to productive knowledge and which activities can be applied by the educators to enhance the productive vocabulary knowledge in the classes.

*Table 2*

*Factors and implementations of productive activities (Faraj, 2015)*

Factor	Implementation
Material	Course books should include not only the form-meaning activities but also deepening and internalizing word activities
Teaching the whole knowledge vocabulary	Vocabulary should be taught with the details of vocabulary such as collocation, antonyms, synonyms etc.
Practice the vocabulary instead of introducing	Activities that give students chances to practice should be implemented in the classes more.
Being motivated	The learners should be well-motivated and should not be disappointed when they forget the word.
Using real-life context	Authentic materials should be brought to the classes and students should make use of these activities.
Choosing the high frequent words	While studying the vocabulary, the most used vocabulary should be prioritized.
Studying the words with all aspects and monitoring the words	Students should prepare color cards with all components of words and get help from smarter students to check their works.
Memory strategies	Students should use the words through story telling. They also should narrate an event or situation that happened to them (Schmitt, 2000). While learning a language, students can use physical actions to practice the words.
Sharing with others	This is a kind of game. Each student presents his/her vocabulary that he/she interested in and learns the knowledge about these words and present to the class orally what she/he has learned.
Evaluating and	With a rubric presented by Nation (2001, p.367), students check their

monitoring the learning	receptive and productive vocabulary knowledge and other students also check them with the help of this rubric.
Recycling the words	Students write a report, short story or a paragraph. Topic is free. The aim is to use selected words within the writing. Students try to use also the collocations, antonyms, synonyms etc. They also underline the words if they use them within the writing (Nation, 2001, p.368).

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### **2.3 Vocabulary knowledge in writing**

Giving chances the learners to produce something by using their receptive knowledge is another critical case. Learners need to catch opportunities to show their vocabulary knowledge and writing and speaking as productive skills shine out. The best skill for the students to use their receptive vocabulary knowledge is writing because Pimsleur (1967) claims that newly acquired word should be exposed at increased period of time. This provides an ability to use that word within a specific context except for being aware of the knowledge of that word. Another reason is that vocabulary and writing has mutual relationship between them: that is to say, the extent and knowledge of vocabulary has an influence on writing while writing also helps to develop vocabulary knowledge (Karakoç&Köse, 2017, p.356). Although some researchers have proofs about the more negative effect of writing target words in a sentence on L2 vocabulary knowledge than the alternative methods (Barcroft, 1998, 2000, 2004; Folse, 1999), the general belief is the efficiency of writing on vocabulary knowledge because lots of studies have cleared out that having not enough vocabulary knowledge cause troubles in writing for the students (Begrliche, 2014; Putra, 2014; Rudy, 2013; Yang, 2015). While the effect of vocabulary knowledge is so clear, vocabulary knowledge also writing assessment played a part in vocabulary assessment criteria. Staehr (2008) call attention to the crucial role of vocabulary knowledge in writing in his studies and indicates that the success in writing has absolutely relationship with vocabulary

knowledge and even though any criteria composes of content, grammar and mechanics, usage of vocabulary in writings is noticed as the most efficient based on many teachers' decisions. When writing is compared to other skills including reading and listening in terms of efficient vocabulary usage, it has much more importance than the others. Pichette, Serres & Lafontaine (2011) explain the reason why writing is much more effective by affirming that writing is really much better than reading with respect to recalling something if enough time is given for tasks so, language teachers can get help from writing tasks which consolidate new words so as to increase students' storage.

## **2.4 Receptive vocabulary**

Vocabulary should be examined as two types such as receptive and productive vocabulary. The definition of receptive knowledge has been given by different researchers.

Receptive knowledge of a word aims at recognizing the word when it is told or when it is shown. Moreover, knowing a word means to be able to remind its meaning when we see it and to be able to make different associations with other related words. (Nation, 1983, p.5)

Al-Jawi (2010) goes on clarification of the definition and states that receptive knowledge tries to infer the meaning of words from context they see or listen, for example, when the learners read a text, watch TV, checking internet Web-sites, listen to something or talk about it. This knowledge uses their already acquired knowledge in order to form new things in L2. Karakoç and Köse (2017, p.353) summarize these remarks very shortly and clearly by saying that receptive vocabulary knowledge contains recognizing the form of a word and obtaining its meaning while reading or listening. Nation (2007, p.3) clarifies these all the features of receptive vocabulary knowledge one by one:

1. To be able to identify the word when listened
2. To be acquainted with the written form to identify during the reading process
3. To be able to identify the affixes or suffixes and associate these with the meaning of the word
4. To have knowledge of the word itself indicates a specific meaning
5. To be conscious of the meaning of that word within the particular context
6. To recognize that there are also other related words
7. To be able to understand the correct usage of that word in the sentence when it is used
8. To be able to aware of potential collations of the word
9. To be able to recognize if it is ordinary or deprecatory.

After the clarification of the definition, studying on how the learners can develop the receptive vocabulary knowledge is essential because it has critical role in students' success. With a limited knowledge about the meaning of target words can direct the learners to make a correct choice in vocabulary knowledge test since the words within a group can convey different meanings (Schmitt, Schmitt & Clapham, 2001). Previous citation shows us the importance of receptive vocabulary knowledge for the tests. Staehr (2008, p.140) points on what kind of activities the learners should do for developing receptive vocabulary knowledge also shows again the importance of receptive skills in vocabulary. The receptive vocabulary knowledge is about the amount of the word knowledge which is stored in the learners' mind, and is needed for reminding process while practicing the activity which demands the usage of receptive skills. Especially, vocabulary has an extreme significant role for being successful at reading proficiency. Zhou (2010) argues the importance of increasing receptive vocabulary knowledge and claims that receptive vocabulary knowledge grows quicker particularly at lower levels. Increasing receptive

vocabulary knowledge is critical issue but the learners can develop receptive knowledge thanks to several vocabulary activities (Topkaraoğlu & Dilman, 2014). Schunk(1999) conducted a study to develop receptive vocabulary knowledge. It was understood that rehearsing the written texts by signs motivated the students and caused to increase their receptive knowledge. Indeed, combining physical actions and visual tips allows development of the receptive vocabulary knowledge. Henriksen (1999, p.307) also expresses how receptive vocabulary knowledge can increase. He claims that teachers should bring activities are called “mapping meaning”. Mapping meaning type activities provides the learners to memorize the meaning of the word easily.

## **2.5 Productive vocabulary**

Productive vocabulary is the second dimension of the vocabulary knowledge. Productive vocabulary can be defined shortly as usage of the vocabulary in the real-life context. Nation (2007, p.42) again puts the features of productive vocabulary knowledge in order.

1. To be able to tell correct pronunciation with true stress
2. To be able to spell the word accurately,
3. To be able to apply correct word parts in suitable forms,
4. To be able to use the word in different contexts,
5. To be able to use not merely synonyms but also antonyms of the word,
6. To be able to use the word properly in the original context,
7. To be able to tell words' collocations
8. To recognize when, where and how often to produce that word.

Laufer (1998) divides the productive vocabulary knowledge into two categories as controlled and free productive, thus making better vocabulary knowledge not only receptively but also

productively. “Controlled practice” is defined as completing the words when the clue is given. For example, “He was riding a bic\_\_\_\_\_”. The word should be completed at this type of activity (Laufer and Nation 1999). The latter productive knowledge type indicates practicing the word spontaneously without getting any help or looking at any clue (Zhong, 2012).

Vocabulary production is very problematic issue especially for learning English as a Foreign Language (EFL). Productive vocabulary knowledge is mostly seen as the most popular confronted trouble for L2 learners (Nation, 1990; Schmitt & McCarthy, 1997; Mokhtar, 2010). The learners think productive vocabulary as a chaos matter and this situation gets attention by the researchers a lot. Dwelling on this issue became very serious for the researchers. Laufer and Goldstein (2004, p.408) approve the difficultness of productive vocabulary and explain the hierarchy of vocabulary skills. There are four levels of vocabulary skills:

- 1- Remembering actively means an ability to make use of the target word) (the most difficult),
- 2- Remembering passively means an ability to provide the comprehending of the target word,
- 3- Identifying actively means to understand the word when the meaning of the word is given,
- 4- Identifying actively or skill to know the meaning of the target word when the meaning choices of the words are provided (the easiest).

By considering this hierarchy, productive activities gain importance. According to Goodfellow (1993), university students couldn't importantly develop their productive vocabulary knowledge if there was not any regular vocabulary learning strategy because the learners have bias towards producing simple, general and frequently used words in the skills. If the learners can use the

vocabulary productively within a harmony by themselves, at that moment, a learner just can do master at producing the vocabulary (Meara, 2002; Schmitt, 2000). Nevertheless, acquiring productive vocabulary knowledge and applying them to real life context is so slow procedure that's why much time and attempts are demanded by the learners (Nation & Waring, 1997). Even just time and effort may not be enough. Webb (2008) gives extra details by telling that implementing productive skills is more complicated and requires more effort so, the students are called for not only being aware of the meaning but individual and knowing each vocabulary in detail as well.

Additionally and more particularly, usage of full vocabulary knowledge may be supported with certain and realistic aims consisting of various methods of productive vocabulary knowledge taught by the educators with adequate language training and practice.

(Levitzky-Aviad & Laufer, 2013, p.144)

## **2.6 Receptive Vocabulary versus Productive Vocabulary**

As receptive and productive vocabulary knowledge are related to each other, comparing and contrasting them or studying the relationship between them is indispensable. Receptive and productive are considered as the two interlinked components of knowing vocabulary (Zareva, 2005). These two aspects of vocabulary knowledge have always been compared. Receptive knowledge is about reading and listening skills while productive knowledge is about writing and speaking (Crow, 1986; Slolati-Dehkordi & Salehi, 2016). Indeed, learning has many continuums which appear to overlap are tagged as receptive and productive (Oller, 1976; Waring, 2002 cited in Karakoç, 2016, p.353; Choi, 2007). As these two aspects are overlapped, there is a need clear distinction to make everything clear so, Laufer & Goldstein (2004, pp. 405-407) discriminate four

degrees of knowledge that based on two divisions: (1) understanding the form when the meaning is given versus understanding the meaning when a form is given and (2) having an ability to remember versus just having an ability to identify whether form or meaning.

Receptive and productive vocabulary can be said as active and passive vocabulary.

Generally, most tests are created especially to measure L2 receptive vocabulary knowledge. Increasing receptive vocabulary knowledge before productive knowledge can be said as a reason. However, at some level, receptive knowledge is a necessity for production to happen. Hence, the amount of receptive vocabulary knowledge will be always bigger than the productive vocabulary. (Nation, 2001, p.371)

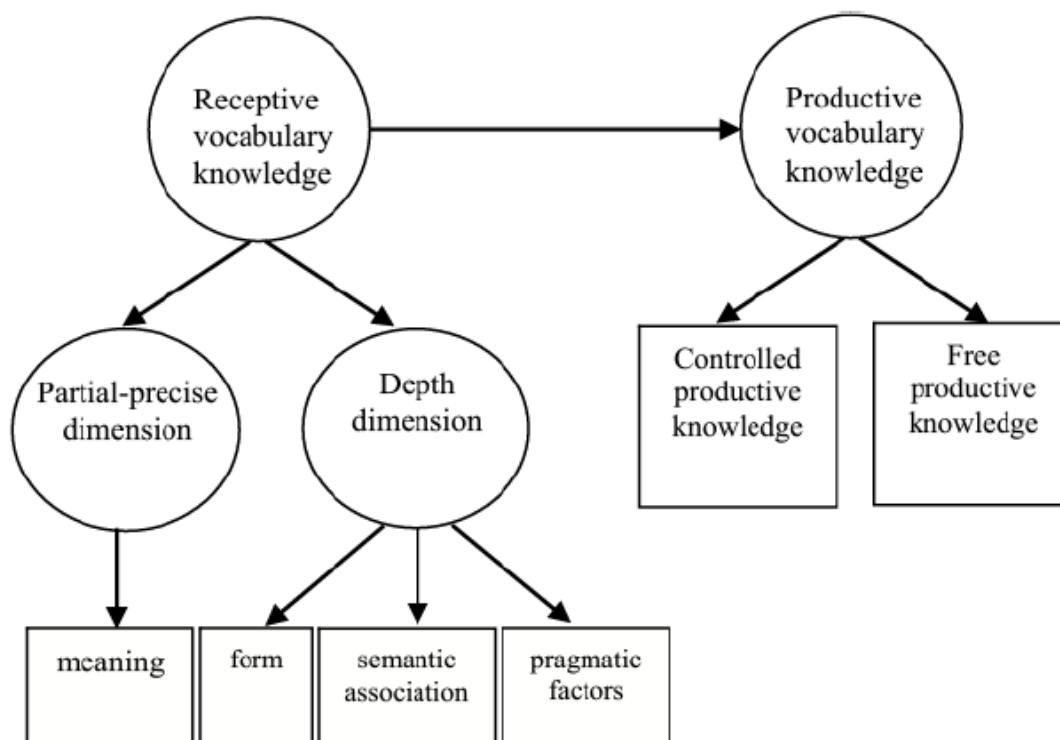
Nation (2001) also explains his idea very clearly and it is stated as Figure 1 below:



Form	Spoken	Receptive	What does the word sound like?
		Productive	How is the word pronounced?
	Written	Receptive	What does the word look like?
		Productive	How is the word spelled?
	Word parts	Receptive	What parts can we recognize in this word?
		Productive	What word parts are needed to express meaning?
Meaning	Form and meaning	Receptive	What meaning does this form signal?
		Productive	What word form can be used to express this meaning?
	Concept and referents	Receptive	What is included in this concept?
		Productive	What items does the concept refer to?
	Associations	Receptive	What other words does this make us think of?
		Productive	What other words are possible to use instead of this one?
Use	Grammatical functions	Receptive	In what patterns does this word occur?
		Productive	In what patterns is this word required to use?
	Collocations	Receptive	What other words or types of words occur with this one?
		Productive	What words or types of words must we use with this one?
	Constraints on use (register, frequency, etc.)	Receptive	Where, when, and how often would we expect to encounter this word?
		Productive	Where, when, and how often can we use this word?

*Figure 1. Aspects of Vocabulary Knowledge (Nation, 2001, p.33-34)*

Zhong (2012, p.33) also illuminates the relationship between receptive and productive knowledge and it is again showed as Figure 2 below:



*Figure 2. The Relationship between Receptive and Productive Vocabulary Knowledge (Zhong, 2012, p.33)*

The important stage for vocabulary knowledge is transforming receptive to productive knowledge. It is seen as the final stage of vocabulary learning (Laufer, 1994; Brown & Payne, 1994). As a reason of this problem is caused due to the fact that receptive knowledge always develops at the beginning. As most vocabulary are learned with a receptive way (Webb, 2005), receptive vocabulary knowledge is greater than the productive knowledge (Webb, 2008) and this can give us a clue about the productive vocabulary size (Waring, 2002; Zhong, 2012). Knowing receptive vocabulary knowledge should come first and only after the learners can make use of intentional learning for productive use (Zhou, 2010, p.15). In fact, increasing a small number of productive knowledge means greater development for receptive recalling (Laufer and Goldstein,

2004, p. 425) but Meara (1997) have opposite idea. He suggests that transforming from receptive to productive vocabulary knowledge is not absolutely ongoing process yet it has a potential boundary. As explained by him, from zero knowledge to full knowledge is not impossible and there is also chance to move from full or intermediate knowledge to zero especially for vocabulary knowledge. Therefore, there should be very practical instructions to be successful at transforming because if the learners have still productive language problems which cannot be waited, then instructions that take a chance to use the receptive knowledge for productive aims should be checked (Laufer& Nation, 1995). A rich vocabulary instruction should involve chances to take students' receptive and productive knowledge a step further and must be in academic context (Nagy& Townsend, 2012, p.101). Some useful strategies based on the results of study which was conducted by Lee and Muncie (2006, p.296) suggested how the learners can transform their receptive knowledge to productive:

- The instructors should prioritize the meaning of target words.
- The extra stress on target vocabulary should be elicited obviously in front of the class and exposed in different ways: students should see the words (spelling), listen to the words (teacher sampling), repeat the words after introduced by the teachers (pronunciation), figure out the words in different contexts, use the words in writing, and utilize the words in context in the composition.
- The teachers should guide the students with a clear writing organization and this creates more mental relief for stressing on vocabulary.
- Writing works should be collected as three drafts and this provides students to concentrates on the vocabulary in second and third version. The effect of the second

version was seen in the study of Muncie (2002) while the third draft effect was seen in the study of Lee (2003).

- Lots of new words should be instructed specifically as much as possible because it is a clear factor (Corson, 1985) to increase the motivation of students and chance to utilize a word.
- Using the words in the second draft which can be produce again and again turns the words to the productive knowledge. If this process continues and the third version is wanted after the second version, appropriately productive usage can be provided and Sugawara (1992) approves this effect.

## **2.7 Technology in Education**

It has been widely known fact that technology has become a part of our lives. When the technology is looked from sociological perspective, technology is defined very well:

... “the totality of the means employed to provide objects necessary for human sustenance and comfort” and “a technical method of achieving a practical purpose.” Today’s popular usage of technology is also presented as “technology equals machinery” (Webster’s New Collegiate Dictionary, 2004).

Using computer technology in English Language Teaching (ELT) context has also been popular since 1960s (Lee, 2000). ELT techniques have naturally been affected. With technological developments, ELT teacher’s educational strategies have been strongly affected by the introduction of computers (Uzunboylu, Bicen & Cavus, 2011). Indeed, integrating technology to education is not the latest thing. If we categorize blackboard as a technological tool, it can be said that it has been around in language teaching. In 1970s, different devices such as tape recorders, language labs and video have been firstly presented to language teaching environment, and usage of these vehicles has been continuing all around world (Demirekin, 2014, p.12).

Burston (2013) mentions the usage of technological devices in education in the 20<sup>th</sup> century and states that facilities for portable access to language learning materials are provided by technological devices such as computers, laptops, netbooks and web-based applications. Moreover, it is understood that digital tools have very significant effect on the motivation of the learners and their foreign language developments when the literature is examined in detail (Strassman& O'Dell, 2012; Radovanovic, 2013).

Since technology use in education has become prevalent much, a new coin called “digital native” is brought to the field. Prensky (2001) firstly used this word in the literature and illustrates its meaning as defining current students’ who are born with technological devices such as computers, the Internet, etc. so, all of the current students can be called as native speakers of the digital language. As the educators are fundamental parts of education and today’s children are digital native, this digital environment has sincerely altered teaching environment and teachers, too. Educational technology can differentiate schools massively by structuring useful activities that combine computer technology and other media properly (Wager, 1992). Thanks to advances in computer technology, teachers become more motivated and find opportunities to reevaluate themselves and it is considered as very precious element of daily foreign language learning (Higgings, 1993). Bruce (1998) goes on explaining how technology affect classrooms positively and points out that technology creates an environment which encourage the learners to search for something, make teaching more effective and assist students to express themselves easily. An article which was published by Koehler and Mishra (2005) got attention the significance of incorporating technology into the classrooms. They also underlined instructional tools instead of the instructors since technological devices are controlled by the teachers and they should be applied with a specific method in the classroom. Besides, “technology-driven pedagogy” is emphasized because only at that time, convenient environment and practiced technology can be

implemented in the classrooms and this is the main aim for more effective learning. Lawrence, McNeal and Yıldız (2009) put forward that today's students encounter with various literacy exercises out of the school and they also have chance to make an interaction with modern texts or sources, they can also effortlessly reach everything with mass media also can talk to other people from having different background people and all of these can happen just thanks to computer technologies.

## **2.8 Mobile Assisted Language Learning (MALL)**

In spite of being used newly, Mobile Assisted Language Learning (MALL) has widely accepted in the field of ELT. When educators' articles and students' blogs about smart phones in general belief and learning aims are considered, it is seen the number of students who use mobile phones will go up rapidly thanks to its nowadays popularity and approachability of other devices across mobile networks. Trifonova, Knapp, Ronchetti & Gamper (2004) give the definition of MALL as any device which is small, self-sufficient and unpretentious enough to go along with us at any given moment. MALL can be defined also shortly as making use of mobile learning devices in and outside the learning environment for language learning aims (Traxler, 2009). MALL has itself several advantages to make the learning environment more effective. For instance, Morita (2003) claims that MALL may enable students more flexible learning environment as a mobile phone is the most flexible device which is mostly used by today's society. Millennial generation students are continuously active owing to smart phones and MALL makes reaching to internet and the very trend social networking sites like Facebook convenient (Bainbridge, 2008). Freedom of movement also ensures learning without remaining loyal to location and time even out of the school (Yang, 2013). Being not loyal to location has benefits not only just for learning but also conversation. Miangah and Nezarat (2012) touch on this topic and states mobile learning stimulates conversation with the educators, communication with

friends of the students and let the students to make their decision making skills better not just inside but also outside the classroom.

MALL has also broadly accepted for vocabulary learning. Thornton and Houser (2005) mobile devices have extensively impact on vocabulary learning. The researcher also highlighted that in Korean application market, mobile phone users mostly prefer to download vocabulary learning applications. Even Jeong, Ko, Lim, Sim and Kim (2010) classified greatly used mobile applications for vocabulary learning into five; self-education simulation, game, problem solving and recurrence.

MALL also has benefits for vocabulary language learning. Again by virtue of being flexible technology, mobile English learning systems create omnipresent learning environment for the learners (Chen & Chung, 2008). Godwin-Jones (2011) explains why mobile phones are so effective for vocabulary learning by saying that having absolutely forceful devices which give us the chance to use whenever and wherever we want offer the learners virtually boundless and immense chances to work for L2 vocabulary. When earlier studies were checked, learning vocabulary with mobile phones was perceived as attractive (Azabdaftari & Mozaheb, 2012), useful and enjoyable (Başoğlu & Akdemir, 2010). Hung (2015) also take these studies one step further and found out that the learners have positive ideas about using these kinds of mobile applications like flashcard applications for vocabulary learning is discerned as helpfulness, being easy to utilize and wishing to use them.

## **2.9 Computer Assisted Language Learning**

Computer Assisted Language Learning (CALL) has been trend topic for the researchers for years. In fact, CALL started being used when the computers were believed as a assistance for teachers which means that computer-assisted instruction (CAI) (Barr, 2013). It is shortly defined by Levy (1997) as “the search for and study of applications of the computer in language teaching

and learning.” Beatty (2003) has also parallel idea with the former researcher. He explains his description by stating that CALL is described as any process that the students make use of a computer so as to develop his or her language. The acronym of “computer-assisted language learning” is CALL and it is based on computers which are used for language learning and teaching and the area of CALL is applied linguistic (Chapelle, 2008 cited in Yılmaz, 2014). Pennington (2011) broaches the subject. He says that CALL is the products of computer technology and it is used to help present, give feedback and evaluate the material to learn the language. Information Communication Technology (ICT) is the interpenetrated term with CALL and it has three elements: information, communication and technology. A learner firstly receives the knowledge at the stages of information and communication. After that, they attempt to utility it to transfer and interchange to communicate (Demirekin, 2014, p.14).

CALL in its own right is divided into three different stages as behavioristic CALL, communicative CALL, and integrative CALL (Barson& Debski, 1996). The historical movement starts with behavioristic CALL. It is basically focuses on mechanical activities such as vocabulary or grammar drills, thus giving chances for more meaningful tasks(Hart, 1981 cited in Levy, 1997, 16) but later it shifted from drills to implement computer technology in the classes (Gündüz,2005). In this approach type, language drills and practice tasks are seen as routine activities (Dinçer, 2014, p.18). Communicative CALL tags after. It is argued by Warschauer (2000) that this approach aims at using the language in real life by concentrating on collaborative or socio-mental sights not just cognitive side of communicative instruction. Bearing in mind this fact that computer tasks were prepared to exercise skill much more instead of repetition activities and these exercises should provide control, communication and opportunities for the student choice (Davies, 2003). The latest version of CALL is Integrative CALL. Indeed, teachers understood the importance of this approach when they saw the necessity of using language in a



purposeful and authentic context (Lee, 2000). This approach generally tries to teach four language skills by integration technology to education process (Warschauer & Healey, 1998). It consists of multimedia programs, such as speech identification software, concordance etc. Furthermore, internet enables us to speak in the target language in an excellent environment which is provoked by internet and help us to acquire a foreign language as a general English as a Second Language (ESL) and English as a Foreign Language (EFL) specially (Rahimpour, 2011). Three approaches are explained in detail as a table below:

*Table 3*

*Three approaches of CALL( Kern & Warschauer, 2000; Warschauer, 1996; Warschauer, 2000; Warschauer, 2013)*

<b>Stage</b>	<b>1970s-1980s: Structural CALL</b>	<b>1980s-1990s: Communicative CALL</b>	<b>21st century: Integrative CALL</b>
<i>Technology</i>	Mainframe	PCs	Multimedia and Internet
<i>English-Teaching</i>	Grammar-Translation & Audio Lingual	Communicative Language Teaching	Content-Based ESP/EAP
<i>View of Language</i>	Structural (a formal structural system)	Cognitive (a mentally constructed system)	Socio-cognitive (developed in social interaction)
<i>Principal use of Computers</i>	Drill and Practice	Communicative Exercises	Authentic Discourse
<i>Principal Objective</i>	Accuracy	Fluency	Agency

## 2.10 Efficiency of CALL

The computer is a machine, not a method. Online word is really huge when compared to books, prints or libraries. As far as we know, nobody has ever tried to study on whether the book or the library is effective for language learning. Searching for some sweeping results on the effects of computer or the Internet is equally in vain. (Warschauer & Meskill, 2000, p.304)

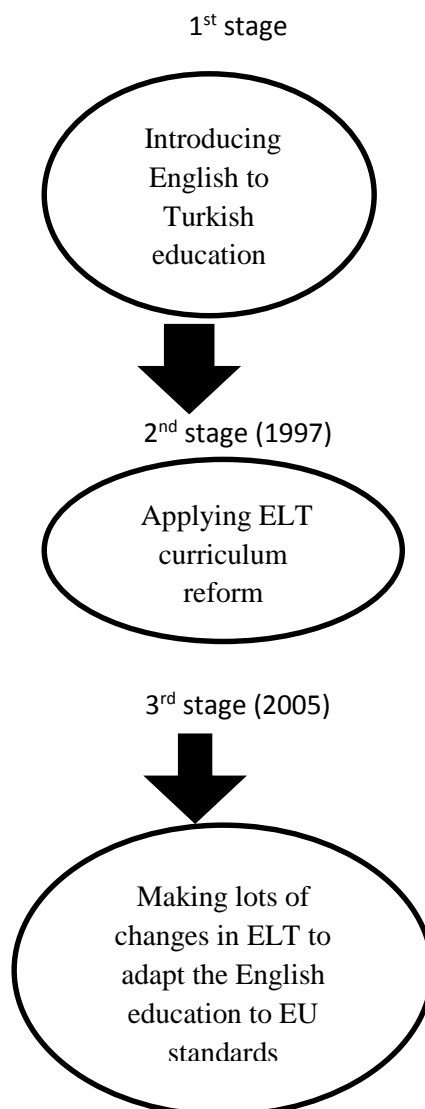
There are many elements which have an impact on the efficiency of CALL. Irvine (2003) tells us what kinds of parameters are important while choosing appropriate tool. The limitations of utilizing that software should be entirely perceived. She also tells us that the way of using that tool and activities are also important. Lastly, the criteria while choosing the tool should be include course aims, organization of activities, the characteristics of institution and the students. Another issue is assured by Nakata (2008) that the learners should have the knowledge how this tool can contribute to recall for a long time and this trustfulness guides the learners to enhance the learning. For example, the computer skills of teachers can be effective for digital instructional devices (Alexander, Crescini, Juskewitch, Lachman& Pawlina, 2009). The relationship between content and learner also must be appropriate and this relation also affects the effectiveness of CALL. It means that the teachers have to know the expectations and needs of their students and their technological background knowledge and they adopt the curriculum according to this need analysis (Iverson, Colky& Cyboran, 20005). Ryan, Rigby and Przybylski (2006) show the importance of this need analysis by claiming that if the activities are regulated in accordance with the interest of students, then personal autonomy increases. Giving chances to choice, receiving gifts as informational feedback, free activities also develop autonomy and, in return, intrinsic motivation. Kremenska (2007) also supports these ideas. He also states that technology itself does not modify language learning and the application of the technology in the classes by the EFL teachers is very crucial point for creating autonomous and well-motivated learners.

When the benefits of CALL are the issue, many advantages can be ordered. Many the researcher conducted different studies on this topic and highlighted different benefits of CALL. Lee (2000, p. 3) starts with the effects of CALL on shy students because they find chance to study not only individually but also collaboratively. For instance, technology can be useful for the students to study individually by keeping the data of each student's performance, checking

the order of items, and ensuring a specific level of success without regard to the skills of learners (Ellis, 1995; Hulstijn, 2001). Retrieval activities can be simply carried out programming on computers (Allum, 2004). Hurwitz and Abegg (1999) attract notice the simulation side of CALL and say that teachers can suggest dynamic process to the students by using simulation activities. CALL also increases sense of safety by creating relaxed environments where the results of actions are not so hazardous like getting bad grades and where mistakes are underestimated unlike to traditional classroom mood (Arslanoğlu, 2015, p.20). For example, the results of the study conducted by Tompson and Dass (2000) show that the learners' self-efficacy are really higher than the other group because the experimental group learned management courses with simulation strategies because these simulation programs made them feel free while experiencing the difficult things as if they were in real environment. Thanks to CALL, the learners and the teachers have really big chance to access to very rich information and authentic materials around the world (Galavis, 1998). The authentic materials absolutely cause to expose the culture and mood of the native speakers (Chapelle, 2001; Debski & Gruba, 1999, Lee, 2000). Technology also offers us transferring anything to technological ICT tools such as software programme for being learning and teaching effective, audio-visual systems such as podcasts or videos that facilitate students to keep it, transmit and use that knowledge wherever they want. Looking from perspective, ICT tools propose us lots of interactional tasks to support the language skills (Demirekin, 2014, p.1). All of these positive sides of CALL make teacher's job easier. Lai and Kristsonis (2006) put an end and express their ideas that teachers are now able to focus on more complex aspects of language learning such as pronunciation, problematic sides of spoken dialogue, practicing for essay writing and presenting it in a better way.

## **2.11 CALL in Turkey**

As learning English has considerable implications for especially the developing countries, Turkey has sought different reforms to spread learning English all over the country. In fact, wishing to spread this notion started with an introduction of approach in Turkey. The 1997 curriculum is milestone for Turkish history as communicative approach began to be used in ELT context for the first time (Kırkgöz, 2005). After this year, more educational reforms in the curriculum come one after another. Gencel (2005) explains this situation in Turkey that Turkey has spent its money to make learning English in Turkey more effective by means of importing the textbooks and materials accordance with textbooks, employing expert native speakers and sending Turkish students to other countries for language learning where English is the native language of that country and opening private language courses. This information is summarized by Kırkgöz, 2007 as Figure 3 below again:



*Figure 3: The historical changes in Turkey in the field of ELT (Kırkgöz, 2007)*

After these reforms, Turkey inherently has to merge CALL into the education system due to the rapid technological developments. Turkey has got mainly two ICT based application. DynED and FATİH projects are the applications by being supported tablet PCs and smart boards (Demirekin, 2014, p.54). DynED is a programme which the structures of language and vocabulary are presented within content such as normal classroom situations, social situations (Fichou, 2003). This system consists of features of CALL because it covers educational and

support software and authorizes the learners to learn English both at school and at home and it allows the teachers to observe the developments of their students and to monitor them, too (Minister 29 Certification, cited in Yiğit, 2012). Another aim of DynED is pointed by Marimuthu and Goh (2005) that grammar is offered with vocabulary so as to provide efficient interaction. Yiğit (2013) researched on this topic by taking the teachers' opinions and resulted that mostly teachers are impartial to "DynED helped the students to improve their speaking skills". Lightly less than half of responses are impartial to "DynED helped the students to improve their writing skills but forty percent of teachers believe the impact of DynED on making students English learning easier. Another very significant project in Turkey is Fatih. The newest technology still being carried out and involving technology integration in the TES is "Increasing the Opportunities and Improving Technology Movement", known as also shortly Fatih project (Kurt, Kuzu, Dursun, Gulpinar, & Gultekin, 2013). Dokur (2008) concentrated on judging and applying the technology with regarding the problems like language instruction contexts. In her study, both the teachers and the learners applied to the ideas of the usage of software for language learning. Every teacher in one of their lessons were recorded thanks to a camera and it was analyzed. This study contributed to educational technology area in terms of estimating and using language tools.

## **2.12 CALL and Vocabulary**

Every element of language including vocabulary is naturally affected by these technological tools. It is absolutely true that computer-based exercises have a key role in not merely learning but also teaching languages aspects such as vocabulary, grammar, writing, pronunciation, and other linguistic skills (Ravichandran, 2000). CALL suggests lots of chances for vocabulary learning. For vocabulary learning, various technologies within the context of CALL such as online practices, software, dictionaries, glosses, corpora, concordancing, and computer-mediated communication (CMC) can be supplied (Levy, 2009). Even though some

researchers (Zhang, Song & Burston, 2011; Banegas, 2012; Thornbury & Meddings, 2001) defend the traditional methods in vocabulary teaching or learning such as mnemonic devices and reading comprehension exercises, majority of researchers (Evans, 2001; Mishra & Koehler, 2005; Hashanat, 2014; Shyamlee & Phil, 2012) stand up for the combination of technology in vocabulary learning and also training. One of the researchers from the defending the efficiency of CALL in vocabulary teaching side (Labrie, 2000) comes with a proof. He puts forward that the effectiveness of CALL activities with sound is really more supportive than the students who is making use of just computer with pictures not sound and is using traditional methods. Ma and Kelly (2006) introduce us three types of CALL vocabulary learning programs: multimedia programme with vocabulary, written texts with glosses, and special vocabulary programs. Among these lots of tools, using flashcards to study vocabulary has taken center stage and called attention by the researchers (Byrd & Lansing, 2016). For an effective vocabulary teaching, using flashcards has been taken into account as useful learning technique for over the last decade based on a great number of studies as it ensures the learners to recall many words in the shortest possible time (Elgort, 2011; Schmitt, 2008; McLean, Hogg & Rush, 2013). For flashcard tools, the reason of being effective in teaching or learning vocabulary is explained because of exposing information with multimedia annotations such as images or videos because these multimedia annotations tolerate multiple reaching ways to the word and affect the memory deeper so, they strengthen withholding (Al-Seghayer, 2001; Chun & Plass, 1996, Yoshii, 2006). Except for flashcards, digital games are also used for vocabulary learning. About the games, Jin and Low (2011) express that applying games for learning or teaching dates indeed back to very old times. Ranalli (2008) examined the influence of *Sims* which is a digital game on vocabulary learning and the perception of students towards usage of digital games for vocabulary learning. He used *Sims* as an educational tool and studied with intermediate-level students. Findings tell us that this

digital game had definitely implications on students' vocabulary acquisition process and most students give a positive opinion about this game.

### **2.13 Web 2.0 Tools**

Web 2.0 Tools is relatively a new term in the field of language learning but its popularity has really increased recently. Web 2.0 is shortly defined as providing interactive information sharing, collaboration and learning through internet (Tafazoli, Chirimbu& Cartis, 2014).

In fact, its origin was Web 1.0 but Web 2.0 technology is accessible to provide the students for motivating and useful language learning activities where addressers and addressees of media and social media have reciprocal relationship. (Demirekin (2014, p.24)

Wheeler (2010) explains the historical movement of Web tools by saying that we are shifting from Web 1.0 which links information with web to Web 2.0 which links social software with people and lastly Web 3.0 which links meaningful web with knowledge will appear. Wikis, blogs, web applications, social sites, file, image and video sharing sites such as *YouTube*, *Flickr*, *Slideshare*, *goodle*, *rapidshare* etc. are the known examples of Web 2.0 tools (Atıcı& Yıldırım, 2010). Wang and Vasquez (2012) searched 43 studies which were conducted with Web 2.0. According to his results, the most chosen tool by the researcher was Blog. Wiki was preferred by 10 researchers while 3-D Virtual tools were picked up 5 researchers. Podcast was also selected 5 researchers. Even this research again shows us the popularity of Web 2.0 tools for language learning.

Among Web 2.0 tools, *Quizlet* leaps to the eye in terms of commonly usage and capability. *Quizlet* as a vocabulary learning tool is based on a teaching vocabulary through pictures idea and Wright (1989) illustrates this idea that the motivation and interest of students are purely affected by pictures. Introducing the structures of languages, target language



vocabulary and functions such as requesting, talking likes and dislikes etc. promote the learners' L2 skills and ability. As *Quizlet* is based on the ground of this idea, *Quizlet*'s main target is to teach vocabulary. Arslanoğlu (2015, p.48) defines it that using it is very comfortable website that includes a lot of possibilities to concentrate on language skills the learners want to study on without spending more energy and knowing lots of things about technology. It is also free. The facilities of *Quizlet* also consist of practicing the language in an interactive atmosphere by enhancing motivation and autonomy, doing activities and having immediate feedbacks in an implicit condition which make the learners feel in secure. The learners can see their mistakes and the teachers can observe students' learning process thanks to immediate feedback, too (Bringula, De Leon, Rayala, Pascual & Sendino, 2017). Jackson III (2015) have another definition for *Quizlet* and states that *Quizlet* was supported by Educreations which is a mobile application that give chances to the teachers make and share educational videos. This tool was developed by university students in the United Arab Emirates. He preferred *Quizlet* for his study which increases vocabulary learning while using L1 and L2 at the same time because of three reasons: 1) taking a grade after every lesson, 2) the credibility of L1 translations, 3) the games.

Another Web 2.0 tool for not only teaching vocabulary efficiently but also practice other language skills at the same time is word clouds. They are preferred in order to motivate the learners and enforce the vocabulary learning (Dalton& Grisham, 2011). The word clouds is a presentation type which brings mostly used words into the forefront with bigger writing style and different sizes (Ramsden& Bate, 2008). According to Shortis (2009), the word clouds are visuals helping the learners to predict possible meanings by looking at vocabulary which are just created based on their frequencies. Generally, just one word is come into prominence and the word which is wanted to emphasize is shown with different writing style, colors and other visual techniques (Halvey& Keane, 2007). They owe its popularity to the websites such as *Del.icio.os* and

*Technorati* because it was created with the help of their supports and it became so popular (Gülcan, 2013). Lohmann, Ziegler and Tetzlaff (2009, p.395) proposed three factors which affect the word clouds visually.

1. Font: The mostly used words are bigger than the others and get attention more.
2. Top left words are easily remembered and get attention quickly.
3. The words which are written in the middle of word clouds have more impact on recalling.

As reputation of the word clouds is increasing, different web-sites which offer the learners to create the word clouds with different designs (Halvey& Keane, 2007, p.1313). *Tagul* is one of these web-sites and it is a web-site which provides convenience to gather documents which include necessary information and to get attention to the some vocabulary and it also gives freedom to the learners to choose designs according to the learners' visual richness (Ünlü, 2014). The idea of using word cloud has a root. This root is explained by Yıldız (2015) that "Perception Hypothesis" is the root of using word clouds. The target of this hypothesis is to notice target vocabulary firstly and match them by choosing any kind of color combinations, writing styles and animations. Its objective is to boost conscious learning. Lots of activities can be done within the classes by implementing the word clouds. Wallace (1992) suggests brainstorming activities which offer the learners to see target vocabulary and to tell the ideas of the learners freely. Hayes (2008) proposes his idea by saying that the word clouds can benefit writing and reading skills. It is also can be used for speaking skill by showing the word clouds by being created based on a part of writing and the teacher may want the learners to summarize or discuss according to this word cloud. Lastly, two word clouds are shown to the learners which are created based upon two different articles written about the same topic and want the learners to compare these word clouds. For writing part, the students can create their word clouds according to their works, experiences and put it to their portfolios. The word clouds can be also effective for improving

listening. For pre-listening activities, the word clouds can be effective and for pre reading activities, key words within the text can be stressed and the learners can have knowledge about these unknown words (Tafazoli, Chirumbu & Cartis, 2014). For speaking skill, it can be useful while choosing the true words and recalling them easily by looking at the word clouds (Perry, 2012). Moreover, through key words within the word clouds, the brainstorming activity can be applied and the students can write composition, poems by being loyal to this word cloud (Bromley, 2013). The study also exhibits the efficiency of the implementation of the word clouds. According to Gülcan's study (2013), word clouds are compared with just pictures. Pre and posttest are used. As a result of her study, word clouds have more effect on noticing and learning the vocabulary much more easily. Mansouri (2015, p.45) also tells that the word clouds have a really higher influence on learning vocabulary especially in terms of persistence of recalling vocabulary rather than learning through flash-cards.

## **2.14 Writing**

Being able to express themselves in a written way looms large for the learners. Thereby, writing skill in L2 is judged as one of the most important skills in language learning (Jackson, 2004; Choi, 2012; Aliakbari & Boghayeri, 2014). It is very important because being able to declare themselves in a written way has a really significant role in both the academic success and self-confidence (Coxhead, 2012). For understandable writing process, different factors play a role. These factors such as L2 lexical and grammatical knowledge and English punctuation knowledge have really power in L2 writing (Engber, 1995; Grabe & Kaplan, 1996; Laufer & Nation, 1995). Formal writing notably in academic context demands to have powerful linguistic knowledge, consisting of a great deal of lexical skills (Kaur & Hegelheimer, 2005). For a well-written writing, vocabulary knowledge and integrating it to writing are vital.

greater experimentation of productive use of new words is supplied by writing rather than speaking since the students spend more time and need to use dictionaries. If the learners have more time, then they can use less frequent but correct words in an active way. As they have more passive vocabulary knowledge, they also need to use their active vocabulary. Corson, 1997, p.687)

Most placement tests such as International English Language Testing System (IELTS) and Test of Written English (TWE) essentially wants from the learners to use specific vocabulary accurately (Engber, 1995) so as to get higher grades. Fareed, Ashraf and Bilal (2016) also order the features of a good ESL writer by stating that he/she ought to be cohesive, reasonable, purely organized, stimulating and have a great deal of vocabulary knowledge.

### **2.15 Writing Difficulties**

Writing is surely very complicated competence to dominate for L2 students, too (Richard, 2002). For this reason, they all have difficulty in developing writing skill; as it also generally happens at the end of all acquired skills (Demirekin, 2014, p.43). Ismail, Hussin and Darus (2012) explain their ideas that it should be noted that most L2 learners find writing difficult and they feel anxious when it is given with writing task so, they reject to spend time on writing. Kara (2013) supports this idea based on her study. Her study focused on students who experienced anxiety during the writing process. She explains three components: Firstly, the students were getting used to take tests in their old life so, they could not improve writing as a skill since they do not know how they express themselves in writing. Secondly, students thought that they could not get organizational strategies and they were not getting along with their teachers. Lastly, course books are not sufficient enough in terms of examples, exercises or clarification. It can be sometimes difficult for native speakers, too. Richards (2002) thinks that writing involves complex skills such as stressing on planning, organizing skills in a greater level, being good at

spelling, punctuation, too. The origin of this difficulty is in fact happening because this skill need more time and seeking for a long time because the learners necessitate to create and arrange ideas and then to convert it to convenient text (Slolati-Dehkordi& Salehi, 2016). Edwards (2018) is looking at this topic from a different perspective and clarifies this topic that the learners must form sentences in a foreign language with correct grammar usage and correct order, appropriate word choice. These choices also should convey the learners' ideas and express whatever in their minds in a right way. All of these tasks are demanding process which causes the students to have difficulty in writing. Except for these features, lacking of enough vocabulary knowledge is another obstacle for a good writing. Language teachers consider the lack of vocabulary knowledge as one of the most major issues for writing skill and L2 learners also believe that the quality of writing is affected by the lack of vocabulary knowledge (Nation, 2001; Walters& Wolf, 1996). Having not enough vocabulary knowledge is perceived as the reason which makes the writing most difficult (Uzawa & Cumming, 1989; Astika, 1993). Wang (2014) also clears up another result of lack of vocabulary that as the learners have limited vocabulary knowledge, they use the same word again and again and this brings about the limitation of expressing their ideas extendedly. This also creates linguistic problems. Poor linguistic control may entail coherence tackles and misinterpretation (Allison, 1995). To overcome these obstacles, some suggestions were presented by the researchers.

Writing lessons should prioritize ways to combine vocabulary with writing through academic ways. By presenting these ways, writers can be encouraged when they see the meaning and form of word primarily that can cause to develop self confidence in applying words in writing rather than using avoidance techniques. (Coxhead, 2012, p.140)

Kelly (2012) puts an end this topic by saying that output-oriented skills are more difficult to teach than the others. As the last tasks want the students to produce the language on their own without

getting any help from teacher to understand the language, productive skills pay attention to greater level of involvement of greater different skills. Thus, higher degree of motivation should be provided while performing speaking and writing tasks.

### **Chapter 3**

#### **Methodology**

The ultimate aim of this thesis is to investigate the effects of using *Quizlet and Word Art* on vocabulary knowledge of students who were the members of engineering department of a state university and try to transform receptive vocabulary knowledge to productive knowledge. This part will introduce in detail the research design, participants, data collection tools, materials, and treatments.

#### **3.1 Research Design**

This study has been applied for 50 minutes during 11 weeks in the 2018-2019 academic year. This process was the same for each group. Mixed method one group research design was chosen by the researcher for this thesis but there were three subgroups because the aim of was not to compare the groups but to identify the effect of treatments. There was also no control group because the researcher desired to observe whether the treatment was effective on subgroups or not. Three sub groups took pretest which was conducted at the beginning of the term and posttest which was conducted at the end of the term. These groups also took pre-writing, post receptive writing after *Quizlet* treatment, and post productive writing after *Word Art* treatment to identify the development of the learners' vocabulary usage productively and find out lexical density of each writing; the researcher also interviewed the participants to check the learners' perceptions towards ICT tools and were seen as proof of qualitative data.

*Quizlet* is a web-site which is generally preferred to practice vocabulary online. It has different modes to practice such as learning, matching, flashcards, writing and it also includes game like “Live”. Students can easily create their vocabulary sets and online flashcards. They can reach early created sets whenever they want and wherever they are. It can also be used via mobile phones. For the first 6 weeks, all subgroups practiced the vocabulary for a full hour in the computer lab of the faculty with the activities of *Quizlet*, which require practicing the vocabulary the exercises of which were created by the researcher as a set by finding the L2 definition of the word with friends as a game and matching the vocabulary with definition individually. All definitions of each vocabulary item were prepared by the researcher in English because the researcher aimed to make the learners learn the antonym and synonym of the word at the same time while practicing the definition. This treatment during 6 weeks aimed to increase receptive vocabulary knowledge.

Word Art is a website which offers the learners and teachers to create attractive and enjoyable pictures which are called as word clouds. According to their desires, they can change the size, font, type of writing and picture. The website also gives chances them to highlight the most important word in the word cloud. For the other 5 weeks, the learners made production activities based on the word cloud which included target vocabulary and was prepared by the researcher. At this stage, all treatment groups again for one full hour each week in the class tried to use vocabulary through production activities by making use of the word cloud that was already shared with the participants on *Edmodo.com* which is a website to help the teacher to stay connected and communicate with their students and parents (Zakime, 2018). This word cloud which was prepared and shared by the researcher was presented in the class thanks to the

smartboard and it was on until the end of production activity. The activities were done individually by the participants, and they tried to use the new vocabulary productively.

After 11 weeks, all groups took a proficiency test and their scores were revealed to be able to understand the differences comparing to pretest. At the end of treatment, two researchers also interviewed the participants to investigate EFL learners' perceptions and positive and negative experiences that they had during the treatment. These data were used to reach the conclusion.

### **3.2 Participants**

This study was conducted at an engineering department of a state university. At the beginning of the term, a placement test by the university was applied to all of the students to identify their proficiency level and according to their scores; they were placed to different proficiency classes. The participants of this study were intermediate level. This level was found based on students' proficiency level scores. Each class had approximately 25 students. Three intermediate classes were identified as subgroups by the researcher to conduct this study. Getting nearly the same results on the final exam of the previous year was an intentional aim to choose these classes. The division of groups was created according to their grades. First group was the first grade while the second group was the third grade. Third group was the fourth grade. These groups were different because their ages and the years of experience were different from each other. These three groups were also taking different courses because they were different grades. As their grades were different, other lesson hours were also different and this also made a distinction among groups. The first group was 27, the second group was 23 and the third group was 20. Totally 70, 6 female and 64 male, the age ranged of the participants were between 18-22



years old. Based on pretest scores, no significant difference among subgroups also could not found.

### **3.3.1 Materials/Instruments**

Mixed method one group research design was applied in this study because this design includes the intentional collection not only quantitative but also qualitative data (Creswell, Plano-Clark & Smith, 2011). Quantitative data was collected through pretest, posttest, pre-writing, post receptive writing and post productive writing tasks to be able to see the development of vocabulary knowledge and whether the vocabulary was used in writing appropriately. In addition, structured interview was the source of qualitative data.

**3.3.1.1 Pretest and posttest.** Pre-intermediate End of Course Test which is prepared by Pearson Publishing is used as pretest because the participants finished *Speak Out Pre-Intermediate Edition 2* book in the previous term so, they were assumed to know the target vocabulary of pre-intermediate book. This test also deliberately was chosen because the previous term, traditional vocabulary teaching type of activities was applied to the learners. The learners mostly looked at their dictionaries and matched the meaning with the word or they filled in the blank with the appropriate words. So, this test could clearly show the effect of ICT tools when it was compared to posttest scores. The researcher did not make any change in the test. There were totally 4 parts and 25 different questions in this test and the total score of the questions were 40. The first part of the pretest aimed to find out the irrelevant word among the other words while the second part planned to find out correct collocation of the word. The third part consisted of writing the correct form of the vocabulary which was written the base form of it. Last part asked the learners to complete the words which were given just the first letter regarding context.

Posttest was chosen as Intermediate End of Course Test published by Pearson Publishing because for 11 weeks, *Speak Out Intermediate Edition 2* was used by the researcher in all classes. This test was used as posttest because target words of this book were covered in this test. Four parts were included in this test by Pearson Publishing and the researcher did not make any adaptation. The total score of 25 questions again was 40 points. First part again asked students to write the correct form of the vocabulary which was given. Second part demanded them to match the vocabulary with collocation by taking care of context and meaning. Third part involved choosing the correct word from the box by looking at the meaning and context whilst finding the correct word between two options was the source of the last part.

**3.3.1.2 Prewriting, Post Receptive Writing and Post Productive Writing** The researcher used writing tasks to see whether students could produce newly acquired words or not and the researcher also wanted to find out the lexical density of each writing after each treatment. This was a free writing. For this reason, the researcher wanted the learners to write freely their opinions about 2 topics on *Edmodo.com* for pre-writing which was conducted before ICT tool treatment (see Appendix A). For all of these writing tasks, by the way, they did not get any help from the online dictionary or their peers. These topics were chosen deliberately because they were the main topics of the learners' previous book:

- 1) What do you think about the usage of tablets-smartboards-laptops in education?
- 2) Do we really need to use main course books in language learning education? Why? Why not?

After *Quizlet* treatment, the researcher again wanted the learners to express their ideas by using at least 150 words within 20 minutes (see Appendix B). This writing was a controlled writing. The researcher gave time and word limitation because he wanted to see clearly whether

receptive knowledge was produced in this writing or not, and the researcher also tried to provide equal opportunity for this study. The goal of post receptive writing task was to examine if the learners could use their receptive knowledge in production activities, and thus, we could calculate lexical density. The topic was again chosen based upon the topic:

-What will education and learning look like ten years from now?

After word cloud treatment, the researcher as a final stage conducted final writing to see a clear effect of word cloud production activities on writing. Final writing consisted of two topics but the learners gave freedom to the learners in terms of choosing one of them based on their interests. By giving freedom, the researcher's objective was to get their ideas voluntarily. This final writing was also controlled writing and wanted the learners to write at least 180 words within 20 minutes to be able to see the clear effect of activities, push them to produce, and provide equal opportunities for everyone (see Appendix C). Topics were chosen this time based on speaking lessons because the learners thought that having background knowledge about a topic had affected their motivation during the writing process and if it was discussed before, the learners could write much more and use their productive vocabulary knowledge freely. The topics were:

- 1) Do you think that grades encourage students to study hard?
- 2) What is the most important thing to learn English?

**3.3.1.3 Interview** Interviews have got a target to gather how the interviewees look at the world, to comprehend their ideas and judgments, and to capture their perceptions and expectations (Patton, 2002, p.348). Therefore, as the final stage of this thesis, interviews were conducted with 10 participants from three groups. 4 students from the first group, 3 students from

the second and the third group were selected randomly (every 4th student on the class list). A second rater accompanied the researcher. The second rater was also an instructor at the department of foreign language education. This rater helped the researcher in terms of categorizing the same codes and increasing the reliability of the interview process. These interviews gave a chance to clarify the positive and negative sides of treatment and perceptions of the learners towards ICT tools. Two instructors in the foreign language department prepared the questions of the interview but to enhance the reliability of the interview, these questions were controlled by Assoc. Prof. Dr. Levent Uzun who is the supervisor of the present thesis.

Faculty hall was the best place for conducting interviews thanks to being silent because the researcher recorded the learners' voices and this silence made a pure voice record for him. This pure record also assisted the researcher while analyzing the answers and coding them. The researcher asked permission of the learners to record orally and the researcher had assured the learners that all information will not be shared anyone. He wanted them to share their ideas sincerely and independently. After the learners' permission, the raters posed these questions to the participant in order;

- 1) Why is vocabulary knowledge important for foreign language learning?
- 2) Do you think that Web 2.0 tools help to improve your vocabulary knowledge? How?
- 3) Do you have any strategies you use to learn unknown words?
- 4) What are the advantages and disadvantages of *Quizlet*?
- 5) What are the advantages and disadvantages of *Word Art*?
- 6) Overall, what did you like and dislike with regard to *Word Art* activities?
- 7) Overall, what did you like and dislike with regard to *Quizlet* activities?

Each question has a unique aim to clarify different things. For the first question, the researcher wanted to understand how vocabulary knowledge is significant for the learners during their education process. The second question aimed at whether the learners believe the efficiency of Web 2.0 tools or not. The third objective is to find out the learners' exclusive strategies expect for these treatment tools. The fourth one wanted to examine the ideas of the students towards *Quizlet* while the fifth one asked the same thing for *Word Art*. Sixth and seventh questions focused on not only the tool itself but also practices of them used in the classes with the teacher or personally and wanted to share their personal views about these activities.

### **3.4 Procedure**

For the first week, pretest and free pre-writing which were written in *Edmodo.com* were administered in order to find out their acquired vocabulary knowledge. The aim of this test was explained to the participants and in that week. The teacher taught target vocabulary from the books' units explicitly to the three subgroups by being loyal to book activities and integration listening and reading because explicit teaching had so important role in vocabulary acquisition (Nation, 2001 p. 232). Each week, 5-8 vocabulary was introduced to the participants by taking care of the researchers' ideas (Biemiller, 2003; McCarten, 2007; Harris, 2018). By the way, the teacher selected target vocabulary by taking care of familiar and unfamiliar vocabulary together concerning Krashen's Comprehensible Input Hypothesis which aims to provide the learners go one step beyond by using their present language ability. By using familiar words, the learners also got the chance to use their visual memory, so this visual memory provided the learners to make connection unfamiliar words with familiar words. In connection with Krashen's hypothesis, chosen target vocabulary triggered the learners' learning process. The proficiency level of the students was also suitable for this process.

New words should be introduced with meanings and synonyms at the same time especially for intermediate students. New target vocabulary should be balanced with already acquired words. Similarities of new vocabulary substitute for the already acquired words. Thanks to exercises, changing a word with a new word from list is very easy and it means that words are interchangeable. (Judd, 1978, p.72)

Besides, the learners' also looked into Longman and Oxford dictionary and pursued highly used vocabulary wordlist while choosing target vocabulary as lots of studies have confirmed that the word frequency is really beneficial for the learners to learn vocabulary more effectively (Laufer & Nation, 1999; Read, 2004; Ozturk, 2015) but the researcher naturally gave priority to the active words in the units. After each explicit teaching, *Quizlet* matching mode which aims at matching the words with the definition as soon as possible individually and live mode was used to practice these vocabulary online. In Live mode, every student has their vocabulary and when they see the definition of the word, they click that word if he has got that word on his screen. The aim is to be the first group matching the definition with the correct word. This treatment lasted 6 weeks totally and receptive vocabulary knowledge was tried to be improved.

Due to exam week, no treatment could be applied for 1 week. After 7 weeks, this time, the learners again shared their ideas on *Edmodo.com* in a written way. This was considered as post receptive writing process and this was controlled writing. The researcher basically wished to see whether learners were able to transfer their receptive knowledge to writing skill.

For 5 weeks, every week, target vocabulary which was determined according to book units were shared on *Edmodo.com* with the learners before the class as the word clouds was prepared by using *Word Art* website (see Appendix D). These word clouds were created based on

the topics of the units and the size of the vocabulary was identified in proportion to a highly used word list. The researcher again used the same process and taught the target vocabulary explicitly to three groups based on book activities. After this process, the researcher used early prepared production activities to practice these words. By using the smartboard, word cloud which had already been shared with the learners on *Edmodo.com* was shown to the learners and production activity was presented. The researcher warned the learners to try using these words in these production activities which were imaged on the smartboard. All activities were done personally because the researcher wanted to increase all of the learners' productive vocabulary knowledge. After each activity, the learners got the chance to present their works in front of the class and the researcher could be able to observe whether they used the target vocabulary appropriately. After this treatment, the learners again shared their ideas on *Edmodo.com* in a written way and the researcher checked if the learners could transform their receptive knowledge into productive.

At the end of 11 weeks, all three groups took posttest at the same time (see Appendix E). After that, the interview process started aiming to collect qualitative data. All interviews lasted approximately 10 minutes and 10 participants took part in. As explained before, the participants were picked up randomly from all groups and smartphone helped him to record their voices after the learners' consent was taken.

*Word Art* activities assigned to the students during the treatment process were deliberately chosen by the researcher; they are shown as a list below with main information about the activities.

8<sup>th</sup> Week: Story writing: There was no topic limitation. The students used their imagination to create an original story and this freedom also helped them to use target vocabulary. They also

drew pictures and named their characters. After these studies, they presented them in front of the class.

9<sup>th</sup> Week: Discussion: The topics were:

- What is your happiest memory?
- How do you feel if you win a lottery?
- What makes you feel stress? What do you do to overcome this problem?

These topics were chosen based on one of the book unit. The unit was about feelings and the researcher intentionally chose these discussions. The researcher wanted the learners to choose one of them and create a dialogue according to their choice. This study was conducted with pairs and pairs were created randomly. They shared their dialogues in front of the class.

10<sup>th</sup> Week: Role Play: According to book unit eight, the researcher created role play cards about the jobs. Within these cards, each job had unique requirements for that job. Before coming to class, the researcher cut these papers. Then, the researcher gave everyone a paper randomly. Some of these papers were the name of the job, the other was the requirements of the job. Everyone stood up, walked in the class and tried to find their pairs by looking at his/her paper. When they matched the job with the requirement, they sat down and created a dialogue. The researcher wanted them to act their dialogue as if they were in a job interview. One of them became an employer and the other one was an employee. Employee introduced himself/herself by checking the paper while the employer asked questions about him/her.

11<sup>th</sup> week: Describing the most important event in history: The researcher wanted the learners to describe the most important event in history according to them by writing. Some of them also



drew pictures about that day. Clue questions were given to the learners by the researcher. These questions were:

- When did it happen?
- What happened?
- Why is so important for you?
- How did it change the world?

There was no limitation while writing. The researcher collected all the papers and gave feedback about grammar and vocabulary mistakes.

12<sup>th</sup> week: 7 pollution types, water, air, soil, thermal, radioactive, noise and light pollution, were addressed to the learners. They chose two of them and thought 3 solutions for each pollution. By making posters which present their solutions, they explained their solutions orally in front of the class.

### **3.5 Data Analysis**

As a result of using mixed method one group research design, various data analysis methods were used. Pretest and posttest scores which are considered as quantitative data were calculated via IBM SPSS Statistics 25 to clarify the achievement of the learners and differences in mean scores of both tests. Both test scores were compared and means were revealed; Analysis of Variance (ANOVA) was applied to identify whether there was any significant difference between three groups according to their pre and posttest scores or not. ANOVA was chosen because the number of the group with three subgroups was more than thirty.

Thanks to AntConc which is an application to find how many times a word is used in a text (Altun, 2019), the researcher wanted to find whether target vocabulary of *Quizlet* treatment were used by the learners in writing or not. By using this tool, the researcher clearly saw how many times the target words are used. The same analysis process is applied for the *Word Art* treatment and post productive writing. To sum up, AntConc showed the researcher whether the target vocabulary of two different treatments was actively used in writings or not.

Prewriting, post receptive and post productive writing lexical density scores were calculated thanks to <http://www.analyzemywriting.com> which is a website examining all components of writing. Lexical density scores of three writing tests were compared again via ANOVA whether there is any significant difference or not. As the number of the group with three subgroups was more than thirty, ANOVA was preferred by the researcher.

To analyze data from interviews, content analysis was used and the same answers were placed to the same coding by two raters. Descriptive analysis was used for these codes, thus, frequencies of each coding were identified and presented as tables.

## **Chapter 4**

### **Results and Findings**

#### **4.1 Quantitative Findings**

A pretest and a posttest were conducted by the researcher to be able to see whether there is any difference in their achievements among the three groups at the end of the treatment. IBM SPSS Statistics 25 helped the researcher to calculate the mean scores of two tests and differences between and within groups.

In order to understand whether there is any significant difference among three groups' pretest scores and posttest scores, the significance value of pretest and posttest scores of three groups was found out thanks to ANOVA (see Table 4).

*Table 4*  
*Significance Value of Pretest and Posttest*

		Sig.
Pretest	Between Groups	.197
	Within Groups	
	Total	
Posttest	Between Groups	.020
	Within Groups	
	Total	

This table showed us that there was a significant difference among three groups' posttest scores ( $z=0,02 < 0,05$ ) while any significant difference could not find among three groups' pretest scores ( $z=0,197 > 0,05$ ).

In order to answer the first research question (RQ), the researcher also compared the results of the three groups' pre and posttest scores. The mean scores of the two tests were calculated again SPSS (see Table 5).

*Table 5*  
*Descriptive Statistics of pretest and posttest mean scores*

Treatment		Pretest	Posttest
First Group	Mean	20.2963	22.8889
	N	27	27
	Std. Deviation	5.36237	7.42829
	Variance	28.755	55.179
Second Group	Mean	22.6957	27.0435
	N	23	23
	Std. Deviation	3.03667	6.22662
	Variance	9.221	38.771
Third Group	Mean	21.0000	21.6000
	N	20	20
	Std. Deviation	5.30144	5.77107
	Variance	28.105	33.305
Total	Mean	21.2857	23.8857
	N	70	70
	Std. Deviation	4.75225	6.89579
	Variance	22.584	47.552

According to data in the table, the mean pretest scores of three groups were respectively 20.29, 22.69 and 21 while the posttest mean scores of three groups were respectively 22.88, 27.04 and 21,6 which mean that all groups developed their scores in the posttest. Besides, It was clearly

seen that total posttest mean scores (23.88) were better than pretest mean scores (21.28) and table 13 and 14 show us that the treatment for 11 weeks was successful.

In order to answer the RQ2, the researcher collected writing data on *Edmodo.com* and analyzed these data via Antconc which is a concordancer tool. For analyzing part, the researcher loaded a corpus which includes target vocabulary based on *Quizlet* treatment and tried to find out which target words were used and how many times they were used. This analysis aimed to see whether the learners could use their receptive vocabulary productively or not. The researcher created a table which presented used target vocabulary in writings after *Quizlet* treatment (see Table 6).

*Table 6*

*The frequencies of used receptive vocabulary in writings after Quizlet treatment*

FREQUENCY	WORDS
14	Appropriately
10	Competitive
8	Inquire
7	Ambitious
5	Enormous
4	Wonder
3	Bilingual
3	Take part in
2	Give a hand

The table clearly indicated that few target vocabulary (n=9) could be used in writings among 46 target vocabulary and the most common vocabulary was "appropriately" (n=14). "Competitive" was the second common vocabulary (n=10) while "inquire" was the third one (n=8).

In order to answer RQ3, the researcher put the writing data being collected thanks to *Edmodo.com* to AntConc tool again. The target vocabulary of *Word Art* activities were again loaded to this tool and all writings were analyzed to be able to clarify which target vocabulary were used in writings after *Word Art* treatment and what these words' frequencies were. The researcher examined the writings so as to see the effect of *Word Art* on students' productive vocabulary knowledge which means to be able to use acquired vocabulary in production activities. These words were presented as a table below (see Table 7).

Table 7

*The frequencies of used receptive vocabulary in writings after Word Art treatment*

FREQUENCY	WORDS
27	encourage
18	easily
13	satisfy
12	hard
10	improve
9	enjoy
8	look after
8	priority
5	lead
4	cope
3	put in
3	argue
2	confuse
2	annoy
1	nuisance

Based on this table, it could be clearly shown that more target vocabulary were chosen by the participants in writings rather than *Quizlet* treatment. 15 target vocabulary were used in writings after *Word Art* treatment among 39 vocabulary. "Encourage" was the most chosen vocabulary (n=27) whilst "easily" was preferred 18 times by the participants. 13 times for "satisfy" and 12 times for "hard" were other popular numbers. "Improve" and "enjoy" were also popular. "Look after", which is a phrasal verb, "priority", "lead", "cope" were also mostly used in writings by the participants.

These tables presented the significant effect of *Word Art* on productive knowledge as more vocabulary was used in writings by the participants. Receptive knowledge could not be

reflected productively enough but *Word Art* was successful in terms of using early acquired vocabulary in production activities.

In order to find out the answer for RQ4, the researcher compared mean scores of lexical densities of three writings. This comparison was applied just to see whether ICT tools have an effect on students' lexical density which shows us the students' vocabulary knowledge (see Table 8).

*Table 8*

*Lexical densities mean scores of the three subgroups*

Writing Test	LD Mean	N:70
Pre Writing	51.49	
Post Receptive	58.38	
Post Productive	62.71	

The mean scores of the lexical density of the three subgroups showed that there was continuingly increase in students' lexical density from pre-writing to post productive writing. At the beginning of the term, the lexical density of pre-writing was 51, 49. After *Quizlet* treatment, this score increased very much and was calculated 58, 38. After the *Word Art* treatment, the highest score was found out as 62, 71. It clearly shows us the positive effect of ICT tools on students' vocabulary knowledge.

The researcher also wanted to find out whether there is any significant difference between the three groups in three writing test based on lexical density scores. Therefore, the researcher again used ANOVA to find out the significance value of the three writing tests (see Table 9).



*Table 9*  
*Significance Values of Pre, Post Receptive and Post Productive Writing*

		Sum of Squares	.Sig
Pre-Writing	Between Groups	73.787	.367
	Within Groups	1484.499	
	Total	1558.286	
Post Receptive	Between Groups	360.663	.018
	Within Groups	2920.423	
	Total	3281.086	
Post Productive	Between Groups	450.600	.000
	Within Groups	3327.234	
	Total	3777.834	

The table showed us that any significant difference could not find out in pre-writing ( $z=0,367 > 0,05$ ). However, there was a significant difference in post receptive ( $z=0,01 < 0,05$ ) and post productive writings ( $z=0,00 < 0,05$ ) and these scores clarified that ICT tools treatments were really successful and this affected students' vocabulary knowledge positively.

**4.1.2 The summary of the quantitative findings.** The quantitative findings of this study indicated that participants of the three groups increased their success based on the scores in the posttest. *Word Art* treatment was also more effective than *Quizlet* treatment in terms of using vocabulary productively because more target words of *Word Art* treatment were chosen to use in writings. With regards to lexical density scores, it was clearly seen that ICT tools had a big positive effect on students' vocabulary knowledge in writing and they really did better in post receptive and post productive writings rather than pre-writing. There was also a significant difference in post receptive and post productive writing. The quantitative findings illuminated the

researcher to search whether the treatment affected the learners' vocabulary knowledge to find out the RQ1; furthermore, the findings clarified whether the learners could transform their receptive knowledge to productive thanks to *Word Art* to answer RQ2 and RQ3 and lastly, the findings guided the researcher whether ICT tools have an effect on lexical density in students' writings in order to answer RQ4.

## **4.2 Qualitative Results**

This thesis gathered qualitative data with the help of interviews which were conducted by the researcher and one of his colleagues who work in the foreign languages department. The second rater supported the coding and putting the themes to the same categories.

Totally 7 questions were addressed to the learners who were chosen from all three subgroups; the ultimate target of the interview questions was to find out the perceptions of the learners towards ICT tools and the treatment process that lasted for 11 weeks.

**4.2.1 The first interview question.** This question "What is the importance of vocabulary in foreign language learning?" desired to search for the EFL learners' perception of the vocabulary knowledge. This question tried to learn what the importance of vocabulary knowledge is in terms of learning English (Table 10).

*Table 10*  
*Participants' ideas about the importance of vocabulary*

Variables	<i>f</i>
Communication	9
Understanding the materials	4
Improve four skills	3
Using different types of sentences	3
Leaving repetition	2
Help to improve academic knowledge	2
Taking pleasure	2
Cultural aspects	1
Develop themselves	1

According to students' answers, it can be clearly understood that most EFL learners perceive vocabulary knowledge for better communication. Understanding other materials are also another critical issue for EFL learners to have good vocabulary knowledge. Based on students' answers, four skills depend on vocabulary knowledge as discussed before in this study and the learners also think that being able to use different sentence types have a connection with vocabulary knowledge. This answer also tells us the importance of vocabulary knowledge in terms of leaving repetition. Their answers also show that learning process can be enjoyable if they know enough vocabulary.

Finally, two interviewees think vocabulary knowledge is important as they have to improve their academic knowledge. One participant also explains the importance of vocabulary

knowledge by claiming the cultural aspects and another participant thinks that being an autonomous learner requires good vocabulary knowledge. These are the ideas of students:

“As I do not have enough vocabulary knowledge, I cannot understand articles, newspapers.”

“Vocabulary is the main component of English. We cannot improve our skills without vocabulary.”

“In order to express myself, I need vocabulary.”

**4.2.2 The second interview question.** This question "Do you think that Web 2.0 tools help to improve your vocabulary knowledge? How?" aimed at finding out whether the learners believe the efficiency of ICT tools on vocabulary knowledge or not (see Table 11) and how these tools affect them in terms of developing their knowledge.

*Table 11*

*Do you think that ICT tools help you improve your vocabulary skills?*

Variables	<i>f</i>
Yes	10
No	0

It is so clearly seen that all interviewees believe the importance of ICT tools' effect on vocabulary knowledge. Thus, another question comes up to clarify how it affects their knowledge (See Table 12).

*Table 12*  
*How does it help?*

Variables	<i>f</i>
Make vocabulary knowledge permanent	4
Competition	3
Rote learning	2
Attention catching	2
Identifying other components	1
Easy access	1

The answers lead us a very important side of ICT tools. Most learners believe that ICT tools give them chances to make their vocabulary knowledge permanent. Three learners also catch attention to the competition side of technology. The learners perceive competition as a good way to improve their knowledge. Moreover, two participants regard ICT tools as significant in terms of not only rote learning but also attention catching. One participant makes use of technology by identifying other elements of vocabulary at the same time such as antonym, synonym, and part of speech. Easy access also is considered as a very big advantage of technological tools.

As a result of this question, it is purely seen that EFL learners undoubtedly believe the significance of technological tools in terms of developing their vocabulary knowledge and according to their answers, there are various ways how they are making use of ICT tools while developing their knowledge. These comments lead us to make a conclusion that they have a positive perception of the tools.

“Instead of paper, I can easily access to everything online.”

“As definition of the word was English, I can easily identify other components.”

**4.2.3 The third interview question.** This question "Do you have any other strategies you used in order to learn an unknown vocabulary?" was addressed to the learners to gather other strategies to learn unknown vocabulary which are being used by the learners; the researcher wanted them to share these strategies (see Table 13).

*Table 13*

*Do you have any other strategies except for ICT tools to improve vocabulary knowledge?*

Variables	<i>f</i>
Using online dictionary	7
Using it in a sentence	4
Watching movie	3
Reading book	2
Taking note again and again	2
Guessing from the context	1
Making flash cards	1
Looking at root of vocabulary	1

By taking care of their answers, it is surely understood that seven of them prefer to use an online dictionary to learn vocabulary. The second popular answer was to be able to use the unknown vocabulary in a sentence; the learners prefer making it permanent by activating the vocabulary in their lives. "Watching a movie" and "Reading a book" are other popular answers;

the reason for these answers is explained by having fun while learning. Trying to predict by looking at the context and the root of the vocabulary are also preferred by one interviewee; the reason of these answers are explained that the context and root give clues to the learners to predict them to the meaning of the vocabulary. Making a flashcard which provides the learners to deal with the vocabulary is another strategy being used by one learner.

To sum up, EFL learners mostly choose to look up the dictionary and they try to activate that word in their minds by using them in sentences. To create a satisfactory and pleasant condition for vocabulary learning, they choose to watch a movie or read a book. Using their early acquired knowledge to learn another vocabulary is also considered as a good strategy for the learners that's why they prefer trying to remind that vocabulary by using their memories. Making flashcards are also another strategy which enables them to look at all components of vocabulary at one page and make a connection with other components.

“Firstly, I checked the dictionary example sentences. If I think that I will not remember this word, I use that word in a sentence.”

“I learn by watching things about my hobbies. I also use Tureng a lot.”

“Before looking at dictionary, I try to guess the meaning by looking at the context.”

**4.2.4. The fourth interview question.** The fourth question “What are the advantages or disadvantages of *Quizlet*” wanted to learn what the learners have in their minds about *Quizlet*. This question was asked them to express both the advantage and disadvantage of this tool one by one (See Table 14 and 15).

*Table 14*  
*The advantages of Quizlet*

Variables	<i>f</i>
Enjoyable	4
Increasing permanency	3
Repetition	3
Collaborative learning	2
Interactive	1
Colorful	1
Seeing example sentence	1

According to these answers, the most popular advantage of *Quizlet* is creating enjoyable mood in the classroom. Three participants responded that *Quizlet* has an advantage as it increases the permanency of vocabulary. Being a connection with this answer, repetition is recognized as a very popular advantage. Another popular answer was to learn the language collaboratively; the interviewees think that *Quizlet* led them to practice vocabulary knowledge with their friends and it makes their learning efficient. Being interactive is also the result of this idea. Having different colors in it is another popular answer; the participant thinks that this motivates them to study hard. Seeing an example sentence of a word is also considered as an advantage of *Quizlet* by one participant as they easily access to all components of vocabulary thanks to just one tool.

“After I learn the vocabularies, I repeat the vocabularies online after the lesson. It increases my vocabulary.”

“ The mood of class is changing when we open Quizlet.”



*Table 15*  
*The disadvantages of Quizlet*

Variables	<i>f</i>
Leading to rote learning	2
Physical disorder	1
Not collaborative	1
Reaching the answers easily	1
Lacking video	1

Leading to rote learning is seen as the biggest disadvantage of *Quizlet*; two participants think that they just learn the vocabulary by heart, and then they forget it. This leads to rote learning not acquiring it. Another participant express that mostly technology affects our health especially our eyes negatively as people look at them for a very long time. Interestingly, the collaboration side of *Quizlet* also is apprehended as negative; the learner thinks that there is not enough collaboration as all activities can be easily done individually. Another popular disadvantage of *Quizlet* is seen as looking at the answers of activities easily; the learner thinks that this problem does not force them to find the correct answer. Very logical criticism is claimed by one learner; it does not include any video even though it is considered as a very popular vocabulary learning tool and it decreases the benefits of *Quizlet*.

“Instead of learning English, I mostly focused on competition. It affects me negatively.”

“It harms our eyes as we look at the computer a lot.”

**4.2.5 The fifth interview question.** “What are the advantages or disadvantages of *Word Art*” is asked to the participants so as to learn both good and bad sides of the tool (see Table 16 and 17).

*Table 16*

*The advantages of Word Art*

Variables	<i>f</i>
Attractive	2
Looking at the definition easily	1
Looking esthetic	1
Group work/discussion	1

By checking the answers of the learners, the most popular answer is "attractive"; two learners find word clouds as attractive because of its different colors, sizes, writing styles and it increases their motivations. The next answer is to be easily looking at the definition of the word included in the word cloud. The learners think that they can easily search the meaning of a word while they are participating in the activity. The word clouds are looking esthetic is another common answer; the participant claims that this esthetic changes the mood of the class and motivates them to participate in the activities. The last common response is "making use of group work activities" thanks to the word cloud. One participant thinks that word clouds are really suitable for creating discussion activities as it directly gives chances to discuss while looking at the word clouds.

“Word Art looks attractive as it has different colors. It attracts me.”

“While I am looking at the word, I can easily check the definition.”

“Discussion can be easily provided by Word Art because there is no need to check vocabulary all the time. All of them are on the screen. While I am discussing, I just look at the board.

*Table 17*

*The disadvantage of Word Art*

Variables	<i>f</i>
Lacking example sentences	1

It was surprisingly seen that just one student expressed the disadvantage of *Word Art* while others could not find any disadvantage. There is just one disadvantage and it is "lacking example sentences". The participant wishes to include example sentences or definitions of words because it makes producing harder for them when they do not remember the meaning of that word. That's why they sometimes need to see the examples of words in front of them.

“As there is no example sentence, I cannot associate with the word.”

**4.2.6 The sixth interview question.** This question "Overall, what did you like or dislike with regard to *Word Art* activities?" purposed to discover positive and negative reviews of students about whole *Word Art* treatment process especially activities (see Table 18 and 19).

*Table 18*  
*The advantages of Word Art activities*

Variables	<i>f</i>
Being able to use vocabulary	9
Make vocabulary permanent	2
Dealing with vocabulary	1

The ideas of students about *Word Art* activities obviously clarify the importance of the activities with respect to giving chances to be able to use vocabulary in an authentic context. In addition, they could find opportunities which could not transform their existed knowledge to productive thanks to these activities. Hence, this was the most chosen answer by the participants. The second common answer was "make vocabulary permanent; they thought that these activities created an environment which they would make their knowledge permanent. The next popular answer was "dealing with vocabulary"; they desired to do something with that vocabulary. They wanted to handle with that vocabulary in order to stimulate the vocabulary learning process.

“I try to use that vocabulary within a context and I search that vocabulary very deeply to use.”

“It increases not only my writing skill but also vocabulary knowledge.”

“I generally spend my time to learn that vocabulary. I mostly focus on it.”

*Table 19*  
*The disadvantages of Word Art activities*

Variables	<i>f</i>
Not free enough	4
Boring	1

The answers showed that the biggest handicap of the activities was not free enough which means that the learners could not find appropriate conditions to express their creative ideas. The next common response was "boring"; they thought that the activities did not catch attention enough.

To sum up, the activities generally were found very effective to be able to turn their early acquired knowledge to productive and these activities caused them to cope with these vocabulary to store that word in their long-term memories. On the other hand, some learners could not reveal their full potential since they could not find enough possibilities to be creative. Besides, some learners could not be affected positively enough by these activities because they were not interested in these activities because of finding them boring.

“As the activities generally push me to use specific vocabulary in a context, I am easily bored.”

“Activities limit my creativity. I could not produce whatever I want.”

**4.2.7 The seventh interview question.** This question “Overall, what did you like or dislike with regard to *Quizlet* activities?” was addressed to elucidate the learners’ both positive and negative ideas about *Quizlet* activities which were applied in the classes (see Table 20 and 21).

*Table 20*  
*The advantages of Quizlet activities*

Variables	<i>f</i>
Competition	4
Make vocabulary permanent	2
Learning quickly	1
Reminder	1

Based on students' positive views on *Quizlet* activities, "competition" was found as the most common answer; this competition provided them to alert all time and keen on vocabulary. The second popular answer was "make vocabulary permanent"; they practiced enough as there were lots of practicing activities on *Quizlet*. The next common answer was "learning quickly". *Quizlet* triggered their learning process in a positive way. They could easily get vocabulary due to *Quizlet's* activities. According to the learners, the last advantage of *Quizlet* activities was "reminder"; the same vocabulary could appear on the screen many times as the activities included immediate feedback. This immediate feedback session enabled them to remind the same vocabulary again and again.

“Games like Live mode helped me to repeat the word again and again so, it increased the permanency.”

“Before exam, I use matching mode because when I try to find the right definition among other definitions. That is the most important thing.”

“As I am learning vocabulary by playing games, it is more effective in terms of vocabulary learning. It makes my vocabulary knowledge permanent. Competition triggers me to learn much more things.”

Table 21

*The disadvantages of Quizlet activities*

Variables	<i>f</i>
Time limitation	3
Not permanent	2
Dismissing speaking	1
Competition	1

"Time limitation" was regarded as the biggest disadvantage of *Quizlet* activities by the participants. This limitation could cause them to get anxious simply and acquisition could not happen. The second popular answer was "not permanent". Interestingly, some learners found *Quizlet* activities as being not permanent; they thought that activities were at the forefront instead of learning vocabulary process. "Dismissing speaking" was the third handicap for *Quizlet* activities; the learners responded that there was no speaking activity but our first aim was to speak a lot. Surprisingly, they again pointed out "competition" but this time, it was shown as a negative side; completing the activity was more important than the learning process according to them.

“It is just a kind of game. It did not make my vocabulary knowledge permanent.”

“Time limitation makes me anxious because I could not feel relaxed while time was going on.”

As a result of these responses, the learners have really positive attitudes towards *Quizlet* activities. The activities were really found effective in terms of making vocabulary knowledge permanent and their learning process accelerated thanks to *Quizlet* activities. The competition was the favorite answer of the learners but competition affected their process both positively and negatively. Moreover, speaking was taken no notice and this lacking was presented by the learners.

**4.2.8 The summary of the qualitative findings.** The qualitative findings’ aim was to identify the perceptions of EFL learners and what they thought about the whole treatment process for 11 weeks; the interview questions were addressed to the learners to answer the fifth research question of the thesis. According to their answers, it was seen that the learners have really positive awareness towards ICT tools especially *Quizlet* and *Word Art*. Based on their answers, to store their vocabulary knowledge in long term memory, ICT has really big role as well as creating a enjoyable mood in class. *Quizlet* specifically with activities provides repetition and increase permanency but it may sometimes leads to rote learning much more. On the other hand, the participants shortly think that *Word Art* which looks attractive and esthetic is really effective in producing target vocabulary because it forces the learners to spend their time to think about the vocabulary and its forms and use their imagination. However, activities sometimes may be dull for the learners. Generally, the student’s ideas have revealed that the importance of vocabulary knowledge has been entirely understood and ICT tools with a really positive effect may increase their vocabulary knowledge.



## Chapter 5

### Discussion

#### 5.1 Overview

In this chapter, the researcher will discuss the findings and results of this thesis that have been collected through qualitative and quantitative and the researcher will seek the answers of research questions and show the conclusion of the study as well as the recommendations for the further studies.

#### 5.2. Discussion of Findings with Relation to the Research Questions

This study aimed at answering the following research questions;

1. To what extent do *Quizlet* and *Word Art* contribute to the vocabulary knowledge of the students?
2. Is there any difference among the three subgroups regarding receptive vocabulary knowledge after the treatment based on post receptive writing in terms of target vocabulary usage?
3. Is there any difference among the three subgroups regarding productive vocabulary knowledge after the treatment based on post productive writing in terms of target vocabulary usage?
4. To what extent do *Quizlet* and *Word Art* contribute to the students' writing performance in terms of lexical density based on pre, post receptive and post productive writing?
5. What are the views of students about *Quizlet* and *Word Art*?

**5.2.1. Discussion of the first research question.** Firstly, this study desired to clarify whether ICT tools have an effect on EFL students' vocabulary knowledge as it is presented in research question 1; thanks to pretest and posttest, quantitative data has been collected and presented in results and findings (Chapter 4) in order to answer this RQ1.

According to results of pretest and posttest, it may be concluded that there was a significant difference among three groups in terms of posttest scores (0, 20) and they obviously increased their scores in posttest when pretest and posttest mean scores were compared. As a result of these results, it is clear that ICT tools positively affected students' vocabulary knowledge. This study found the same results with previous studies. For instance, Çevikbaş (2019) concluded that ICT tools may assist to develop EFL learners' vocabulary knowledge. Similarly, in her study, the experimental group who acquired vocabulary thanks to ICT tool was better than the other group even though the score of the former group was not higher in the pretest. This study also found a significant difference. McLean, Hogg and Rush used Word Engine program in order to increase Japanese students' vocabulary knowledge and they pointed out that Word Engine which is an online flashcard program has fostered vocabulary acquisition. Altiner (2011) found that the students who used Anki which is vocabulary software were more successful than the control group when the posttest scores of both groups were analyzed. Al-Jarf (2007) tried Nicenet which is an online management system but he used different vocabulary web-sites such as OneLook, Cambridge Dictionary in Nicenet. He found those Saudi students' scores empirically significant and they showed high achievement in vocabulary acquisition.

**5.2.2. Discussion of the second research question.** This question has wanted to find out whether *Quizlet* has an effect on students' receptive vocabulary knowledge or not. The researcher wanted to see whether the learners may use these target vocabulary which learned receptively in

writings or not. Based on post receptive writing results which have been analyzed through AntConc, just 9 target words were used in students' writings. When this number was compared with post productive writing, students could not use more words than the latter writing test. Table 17 clearly presented the frequencies of used vocabulary. Although previous studies (Tozcu and Coady, 2004; Kaplan-Rakowski& Loranc-Paszylk, 2017) found the clear effect of *Quizlet* on students' vocabulary knowledge, studies which were conducted about *Quizlet's* effect on students' receptive vocabulary knowledge were not enough in this field.

**5.2.3. Discussion of the third research question.** In order to understand the effect of *Word Art* on students' productive vocabulary knowledge, the number of words which have been produced by the learners in post productive test was found out thanks to AntConc again and the results of this analysis have illustrated that totally 13 words were employed; this number is greater than the post receptive writing. This means that *Word Art* has become successful with regard to usage of target words in productive aims rather than *Quizlet* which are similar with the previous studies in the field Snow, Lawrence, and White (2009), Gülcan (2013), Yıldız (2015). Table 18 introduces the target words used and their frequency.

**5.2.4. Discussion of the fourth research question.** The objective of the RQ4 was to check whether ICT tools have an effect on students' lexical densities and whether there are any significant differences among three writing tests in terms of lexical density. Prewriting lexical densities mean score was found 51.49, post receptive test lexical density mean score was 58.38 and post productive test lexical density mean score was 62.71. The significance value of prewriting was .367 while post receptive writing significant value was .018. The significance value of post productive writing test was .000. These results conclude that ICT tools have greatly

affected students' vocabulary usage in their writing tests as their scores have gradually increased but again *Word Art* has been the most successful tool in terms of lexical density.

In order to see whether treatment was successful in terms of lexical density, the researcher this time checked the significance values of three writings. Contrary to prewriting ( $z=0,367$ ), a significant difference in post receptive ( $z=0,018$ ) and post productive writing ( $z=0,000$ ) was observed likewise the study of Laufer and Nation (1995). It has not been identified enough studies in this field which show the effect of ICT on lexical density.

**5.2.5. Discussion of the fifth research question.** In order to realize the perceptions of EFL learners who have participated in this study, ten of them opted randomly and interviews were applied with them. Seven questions about the course and the treatment were addressed to the learners and the answers of participants were analyzed through codification by using content analysis. In chapter 4, table 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 can be beneficial to clarify the perceptions of the learners towards the treatment and the course.

Table 3 has clearly shown that the learners have the awareness of the importance of vocabulary knowledge. Totally nine different aspects were shared for expressing the importance of vocabulary knowledge such as being able to communicate very well, understanding the authentic materials, improving all skills, using different types of sentences, getting rid of repetition, helping to improve academic knowledge, taking pleasure, learning the culture and developing themselves.

Based on Table 4, all participants have the same idea about the effectiveness of ICT tools on vocabulary skill and they told six different effectiveness roles such as making vocabulary permanent, having competition modes, improving rote learning, catching attention, identifying

other components of vocabulary and accessing easily. At this stage, these findings of this study have been assisted with the studies of Oblinger (2005), Kennedy and Levy (2009). Guariento and Morely (2001) also expressed that ICT tools can facilitate the learners in terms of interacting daily language so, understanding the authentic materials and being ready for these materials can be provided by ICT tools.

Table 6 clarifies other methods used by the learners to improve their vocabulary skills except for ICT tools. Online dictionaries, using the early acquired vocabulary in a sentence, watching a movie and reading a book, trying to predict the meaning by checking the context are expressed by the learners. Lin (2002) told that movies can increase students motivation. For instance, Abelson (1981) and Ebrahimzadeh (2017) also found out that learners can use guessing the meaning of vocabulary by looking at context strategy instead of checking out the meaning of vocabulary immediately. Allum (2004) also shared that learners generally prefer using vocabulary in different sentences in order to store them in their long term memories.

As ICT tools have been favored by the learners, the advantages and disadvantages of *Quizlet* and *Quizlet* activities were searched by the researcher and according to Table 7, the participants found seven advantages of *Quizlet*. Being enjoyable and increasing permanency were generally stated and these results were in line with Jackson (2015). His results defend *Quizlet* by putting forward enjoyable condition of *Quizlet* and helping vocabulary learning permanent aspects. Table 8 indicates the handicaps of *Quizlet*. Al Jarf's (2007) also resulted that Nicenet was found enjoyable and effective by the learners. Leading to rote learning is the biggest drawback according to the result of this study and it is criticized as it does not have collaborative activities, videos and the students can see answers. For *Quizlet* activities, limiting the learners with time is the biggest obstacle for the learners.

Table 9 and 11 reveal the advantages of *Word Art* and *Word Art* activities and the most common advantage of *Word Art* was being attractive. As the word clouds have different sizes, colors, type fonts, the learners have perceived it esthetic and attractive and these results have also confirmed by Yılmaz (2015). *Word Art* activities have been found out beneficial in terms of practicing as the activities push them to use target vocabulary in the activities orally and in a written way and the participants have taken pleasure eventually. These results were also in accordance with Snow, Lawrence, and White (2009).

Table 10 and 12 results show that participants have been difficulty in finding disadvantage for *Word Art* so, just three drawbacks were uttered by the learners. As there is no example sentence of target vocabulary, the learners may not easily associate the vocabulary with the meanings and this is the biggest disadvantage. Besides, *Word Art* activities blamed for not being enough free as probably, the learners have been forced to use vocabulary in activities.

## **Chapter 6**

### **Conclusion**

#### **6.1. An overview of the study**

The main objective of the study was to check the effect of ICT tools on increasing vocabulary knowledge of EFL learners who study at the engineering department of a state university. This study has also focused on mainly transforming students' receptive knowledge to productive knowledge thanks to ICT tools. Apart from other studies previously conducted in the field, this study used two ICT tools; *Quizlet* and *Word Art* at a university environment. 70 EFL learners participated in this study and there were mainly three subgroups. This study lasted for 11 weeks. Pretest and posttest were applied to check the effect of ICT tools on students' overall

vocabulary knowledge; pre-writing, post receptive and post productive writing were also utilized to see the clear effect of ICT tools on students' lexical density which gives clues about students' vocabulary knowledge. Besides, the researcher took 10 interviewees' opinions to identify students' perceptions and attitudes towards the overall treatment process and ICT tools. After conducting an evaluation of finding, this study will end with the conclusion part which includes answers to the research questions of this study and references from the literature of the research field.

## **6.2 Conclusion**

The pretest and posttest scores of three subgroups have clearly demonstrated that all subgroups have risen up their vocabulary knowledge while there was not any significant difference among groups in their pretest scores. Thus, this study revealed that ICT tools may able to help learners' vocabulary knowledge development. Although previous studies (Azabdaftari & Mozaheb, 2012; Başoğlu & Akdemir, 2010; Kiliçkaya & Krajka, 2010) could not find any significant difference between pretest and posttest scores, the results of this study are in accordance with the previous studies in the field because Dizon (2016), Tozcu and Coady (2004) also stated in their study that ICT tools have greater ability to learn vocabulary through ICT tools; furthermore, Çevikbaş (2019) found a positive effect of ICT tools on vocabulary knowledge. Similarly, in her study, the experimental group who acquired vocabulary thanks to ICT tool was better than the other group even though the former group's score was not higher in the pretest. This study also found a significant difference. Therefore, it can be summarized that this study has confirmed that ICT tools can have a great effect on the vocabulary knowledge of EFL learners since they increase their vocabulary knowledge in their posttest scores ( Reinking&Rickman,

1990; Röllinghoff, 1993; Baturay, 2007; Hu&Deng, 2007; Kukulska-Hulme, 2009, Kukulska-Hulme& Shield, 2007; Esit,2011; Fehr&Gelfand, 2012; Dinçer, 2014).

When the effects of *Quizlet* and *Word Art* on receptive and productive vocabulary knowledge were compared, *Word Art* became more successful in terms of using more target vocabulary rather than *Quizlet*. Contrary to Laufer and Paribakht's (1998) claim that having enough receptive knowledge will affect students 'vocabulary knowledge in writing positively, *Quizlet*'s activities helped the learners to improve their receptive knowledge but not use them in writings while *Word Art* activities helped them to increase their productive vocabulary knowledge and use them appropriately in writing. In accordance with these results, Lee (2003) and Faraj (2015) also found that students can increase their productive vocabulary knowledge with some effective strategies; they found a reasonable increase in students' posttest scores in terms of productive vocabulary. In opposition to Faraj (2015), Uygun (2009) found that receptive tasks were beneficial in terms of vocabulary retention while productive tasks were not enough to recall vocabulary for a long time. Demir (2016) also found the same thing that receptive and productive vocabulary knowledge can be enhanced through unrelated vocabulary sets. These results are also similar to Raimes (1985), Leki and Carson (1994), Meara and Fitzpatrick (2000), Baba (2009).

According to lexical densities of pre-writing, post receptive and post productive writing, students' lexical density has really raised based on three writing tests. ICT tools helped them to develop their lexical density scores but especially *Word Art* showed great potential to increase students' lexical density. Even though there was no significant difference in pre-writing, a significant difference was found in students' post receptive and post productive writings. Although Tömen (2016) could not find very big development in students' productive knowledge



in terms of lexical density, the results of post productive writing have proved students' development in their productive vocabulary knowledge.

Based on qualitative data which have been collected through the interviews have revealed that students find the vocabulary knowledge effective in terms of communication and understanding the materials. They also can do master at four skills at the same time thanks to vocabulary knowledge. Vocabulary knowledge also caused them to use different types of sentences and leave the repetition.

They also think the importance of ICT tools on vocabulary knowledge because ICT tools make their knowledge permanent and competition gives a reason for them to learn vocabulary. Their attention can also easily be caught and they also can reach information whenever and wherever they want and these results are in accordance with Özerol, 2009, Stockwell (2010), Yılmaz (2014).

The participants also have other strategies to be able to acquire the vocabulary except for ICT tools. They mostly prefer online dictionaries and they also try to practice them in a different sentence which was also mentioned before Nation (2001). Watching a movie and reading a book also two of their favorite answers. Instead of looking the meaning of the word, they also guess the meaning by looking at the context which was also stated before (Qian& Schedl, 2004; Schank &Abelson, 2013). By looking at the clues, they easily catch the meaning and they are also taking note, again and again, to make the vocabulary knowledge permanent.

As Derakhshan and Khatir (2015) claim that “vocabulary games create an authentic condition for the learners to improve their English in terms of flexibility and communication, this thesis has proved that *Quizlet* is perceived by the learners as a tool not only to create funnier

environment but also making vocabulary teaching permanent which is also in line with Chien (2015). He found that Quizlet was more effective than Study Stack and Flashcard Exchange in terms of funnier mood in the class. The learners also find chances to repeat the vocabulary and can learn collaboratively. This study also pointed out that *Quizlet* is considered as colorful and interactive. The previous studies have also clarified that exposing example sentence of vocabulary is explained as an advantage of *Quizlet* which is an example of incidental learning (Ahmad, 2012; Choo, Lin & Pandian, 2012). This study has also shown the disadvantages. As this study discussed before, *Quizlet* does not have enough chances to produce vocabulary so, it causes rote learning. The students' ideas have also indicated that lacking video is another handicap for the learners. This thesis also has illuminated that limiting students with time may cause big anxiety for the learners. Besides, not involving speaking skills in activities and sometimes competition has created troubles.

Based on this thesis results, *Word Art* has been found as an attractive and aesthetic tool. Reaching the definition of words effortlessly facilitates the learner's vocabulary acquisition process. Beside looking esthetic and attractive, providing group work activities are seen as positive sides of *Word Art* as it is stated in Yilmaz (2015). *Word Art* activities allowed the learners to use target vocabulary in activities and the vocabulary are the focused concern of the learners thanks to *Word Art*. Contrary to *Quizlet*, lacking example sentences is conversely noticed as the biggest drawback. Sometimes, activities are not found free enough and this may cause a boring environment.

To sum up, applying new methods in our classes has necessity (Uzun, 2016) as applications which are used in classes especially for teaching vocabulary through technology can promote prosperous (Nisbet & Austin, 2013). This thesis has proved that ICT tools may develop

students' vocabulary knowledge and students' early acquired vocabulary can be turned into productive knowledge. ICT tools can also impress students' lexical densities. In addition to these benefits, students' perceptions towards these tools are significantly positive such as creating chances to produce vocabulary, seeing examples, making learning permanent, working collaboratively, and creating a enjoyable mood in the class. Accordingly, their scores have also changed affirmatively.

### **6.3 Limitations of the Study and Suggestions for Further Studies**

This current thesis has continued for 11 weeks during an academic term. For further studies which will be conducted in the future, implementing this treatment for the whole year can bring about different results. Increasing the participant number can be another suggestion to reach better results. Focusing group of this thesis was intermediate students. That's why different proficiency level students' can be chosen as target groups. As a limitation of this study, target vocabulary can be learned by the learners' through different sources. Since today's learners can reach any information effortlessly, they can also easily learn target vocabulary or they had already acquired that vocabulary.

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## Appendix




### Appendix A: Pre Writing Topics on *Edmodo.com*

edmodo [Ana Sayfa](#) [Sınıflar](#) [Kütüphane](#) [Mesajlar](#)   

There are two topics. Write your ideas about these 2 topics.  
 1) What do you think about the usage of tablets-smartboards-laptops in education?  
 2) Do we really need to use main course books in language learning education? Why? Why not?

 Beğen  26 Yorumlar  Paylaş

[Daha fazla cevap göster...](#)



  


1-) In education , usage of laptops , tablets or another technological device can be good than classic methods. At the same time , can be worse. If we use just for lesson in the English lesson , there is no problem but while we try to care lesson , at the same time if we use our laptops for another things except lesson there is really a problem for us not for our teacher. I can write more than this , also with better sentences but now I don t have enough time and I m really tired so.


2-) Like last year , we use a main course books . In my opinion , we should use these books because we are progressing with a plan. For grammer , vocab and another activities , the books are good.

Beğen • Cevapla • Mar 05, 2019, 3:54 PM




### Appendix B: Post Receptive Writing Topic on *Edmodo.com*

 **LOKMAN ALTUN** gönderdi şuna 3rd 


Öğretmen 

Nis 21 · 11:00 PM · 

You have 20 minutes. Write at least 150 words.  
 What will education and learning look like ten years from now?

 Beğen  Yorum  Paylaş

## Appendix C: Post Productive Writing Topics on *Edmodo.com*



**LOKMAN ALTUN** gönderdi şuna 3rd

Öğretmen ✓

May 26 · 3:26 PM · 📱

...

Here are the last writing topics. You have 20 minutes. Choose one of them. Write at least 180 words.

- 1) Do you think that grades encourage students to study hard?
- 2) What is the most important thing to learn English?

## Appendix D: An Example of Shared Word Cloud



### Appendix E: Treatment plan of the study

<b>Weeks</b>	<b>Treatment</b>
<b>1<sup>st</sup> week</b>	<b>Pretest/ Pre writing/ Quizlet activity (matching and Live mode)</b>
<b>2<sup>nd</sup> week</b>	<b>Quizlet activity(matching and Live mode)</b>
<b>3<sup>rd</sup> week</b>	<b>Quizlet activity(matching and Live mode)</b>
<b>4<sup>th</sup> week</b>	<b>Quizlet activity(matching and Live mode)</b>
<b>5<sup>th</sup> week</b>	<b>Quizlet activity(matching and Live mode)</b>
<b>6<sup>th</sup> week</b>	<b>Post Receptive Writing/ Quizlet activity(matching and Live mode)</b>
<b>7<sup>th</sup> week</b>	<b>Exam week/No treatment</b>
<b>8<sup>th</sup> week</b>	<b>Word Art-Creative story writing</b>
<b>9<sup>th</sup> week</b>	<b>Word Art- Discussion</b>
<b>10<sup>th</sup> week</b>	<b>Word Art-Role play about jobs</b>
<b>11<sup>th</sup> week</b>	<b>Word Art-Describing the most important event in history</b>
<b>12<sup>th</sup> week</b>	<b>Post Productive Writing/ Word Art-Making posters/ Posttest</b>

## ÖZGEÇMİŞ

### **Personal Info:**

Name Surname: Lokman ALTUN

Place of Birth: Sivas

### **Education**

High School: Sivas Lisesi

BA: English Language Teaching, Anadolu University

### **Professional Experience**

Instructor – Turkish Air Force Academy

### **Publications**

Altun, L. (2019). A Corpus Based Study: Analysis of the Positive Reviews of Amazon. com Users. *Advances in Language and Literary Studies*, 10(1), 123-128.

### **Presentations**

Altun, L. (2018). Consumer Positive Reviews on Amazon.com. 4th Cukurova International ELT Conference, CUELT 2018. Adana, Turkey.

Altun, L. & Dinçer, N (2018) Perceptions of ELT Teachers in Turkey about ICT. 7<sup>th</sup> International Conference on Narrative and Language Studies, NALANS 2018. Trabzon, Turkey.

ULUDAĞ ÜNİVERSİTESİ

TEZ ÇOĞALTMA VE ELEKTRONİK YAYIMLAMA İZİN FORMU

Yazar Adı Soyadı	Lokman Altun
Tez Adı	Transforming Receptive Vocabulary Knowledge into Productive Vocabulary Through ICT Tools and Investigation of Students' Views
Enstitü	Eğitim Bilimleri Enstitüsü
Anabilim Dalı	Yabancı Diller Eğitimi
Tez Türü	Yüksek Lisans Tezi
Tez Danışman(lar)ı	Doç. Dr. Levent UZUN
Çoğaltma (Fotokopi Çekim) izni	<input type="checkbox"/> Tezimden fotokopi çekilmesine izin veriyorum <input checked="" type="checkbox"/> Tezimin sadece içindekiler, özet, kaynakça ve içeriğinin % 10 bölümünün fotokopi çekilmesine izin veriyorum <input type="checkbox"/> Tezimden fotokopi çekilmesine izin vermiyorum
Yayımlama izni	<input type="checkbox"/> Tezimin elektronik ortamda yayımlanmasına izin Veriyorum. <input type="checkbox"/> Tezimin elektronik ortamda yayımlanmasının ertelenmesini istiyorum. 1 yıl <input type="checkbox"/> 2 yıl <input checked="" type="checkbox"/> 3 yıl <input type="checkbox"/> <input type="checkbox"/> Tezimin elektronik ortamda yayınlanmasına izin vermiyorum.

Hazırlamış olduğum tezimin belirttiğim hususlar dikkate alınarak, fikri mülkiyet haklarım saklı kalmak üzere Uludağ Üniversitesi Kütüphane ve Dokümantasyon Daire Başkanlığı tarafından hizmete sunulmasına izin verdiğimi beyan ederim.

Tarih: 16/09/2019

İmza: Lokman ALTUN





**EĞİTİM BİLİMLER ENSTİTÜSÜ  
YÜKSEK LİSANS/DOKTORA İNTİHAL YAZILIM RAPORU**

**ULUDAĞ ÜNİVERSİTESİ  
EĞİTİM BİLİMLER ENSTİTÜSÜ  
YABANCI DİLLER EĞİTİMİ BÖLÜMÜ BAŞKANLIĞI'NA**

Tarih: 16/09/2019

Tez Başlığı / Konusu: TRANSFORMING RECEPTIVE VOCABULARY KNOWLEDGE INTO PRODUCTIVE VOCABULARY THROUGH ICT TOOLS AND INVESTIGATION OF STUDENTS' VIEWS

Yukarıda başlığı gösterilen tez çalışmamın a) Kapak sayfası, b) Giriş, c) Ana bölümler ve d) Sonuç kısımlarında oluşan toplam 150 sayfalık kısmına ilişkin, 16/09/2019 tarihinde şahsım tarafından Turnitin adlı intihal tespiti programından (Turnitin)\* aşağıda belirtilen filtrelemeler uygulanarak alınmış olan özgünlük raporuna göre, tezimin benzerlik oranı % 14 'tür.

Uygulanan filtrelemeler:

- 1- Kaynakça hariç
- 2- Alıntılar hariç/dahil
- 3- 5 kelimedenden daha az örtüşme içeren metin kısımları hariç

Uludağ Üniversitesi Eğitim Bilimleri Enstitüsü Tez Çalışması Özgünlük Raporu Alınması ve Kullanılması Uygulama Esasları'nı inceledim ve bu Uygulama Esasları'nda belirtilen azami benzerlik oranlarına göre tez çalışmamın herhangi bir intihal içermediğini; aksinin tespit edileceği muhtemel durumda doğabilecek her türlü hukuki sorumluluğu kabullenmiş ve yukarıda vermiş olduğum bilgilerin doğru olduğunu beyan ederim.

Gereğini saygılarımla arz ederim.

Tarih ve İmza

16.09.2019

Adı Soyadı: Lokman ALTUN

Öğrenci No: 801793007

Anabilim Dalı: Yabancı Diller Eğitimi

Programı: İngiliz Dili Eğitimi Yüksek Lisans

Statüsü:  Y.Lisans  Doktora

Danışman  
Doç. Dr. Levent UZUM

\* Turnitin programına Uludağ Üniversitesi Kütüphane web sayfasından ulaşılabilir.