THE EFFECTS OF
RECEPTIVE AND PRODUCTIVE TASKS
ON VOCABULARY RETENTION
Aycan AKYILDIZ UYGUN
(Yüksek Lisans Tezi)
Eskişehir, 2009

# THE EFFECTS OF RECEPTIVE AND PRODUCTIVE TASKS ON VOCABULARY RETENTION 

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## MA THESIS

English Language Teaching Program
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# ALGIYA ve/veya ÜRETMEYE DAYALI ETKINLIKLERİN KELIME ÖĞRENIMİ ÜZERİNDEKİ ETKİLERİ 

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Eskişehir
Anadolu Üniversitesi
Eğitim Bilimleri Enstitüsü
Haziran, 2009

To my husband..

## YÜKSEK LİSANS TEZ ÖZÜ

ALGIYA ve/veya ÜRETMEYE DAYALI ETKİNLİKLERİN KELİME
ÖĞRENİMİ ÜZERİNDEKİ ETKİLERİ
Aycan AKYILDIZ UYGUN
İngiliz Dili Eğitimi Anabilim Dalı
Anadolu Üniversitesi Eğitim Bilimleri Enstitüsü, 2009
Danışman: Prof. Dr. İlknur KEÇíK
Bu çalışmada algıya ve/veya üretmeye dayalı etkinliklerin kelime öğrenimi üzerindeki etkileri araştırılmıştır. Bu amaçla algıya dayalı, üretmeye dayalı ve hem algıya hem üretmeye dayalı etkinlik alan ve bu etkinlikleri almayan (kontrol grubu) olmak üzere toplam 4 grup oluşturulmuştur. Gruplara orta düzey altı dil düzeyinden 4 sınıf rassal olarak atanmıştır. Çalışmada, ilk sözcük setinin uygulamasına toplam 127, ikinci sözcük setinin uygulamasına ise toplam 117 öğrenci katılmıştır.

Çalışma iki farklı sözcük setini (her bir sette 8 sözcük olmak üzere) içeren 2 uygulamadan oluşmaktadır. İkinci bir uygulamanın nedeni farklı sözcük gruplarıyla benzer sonuçların elde edilip edilemeyeceğini sınamaktır. Her bir sözcük setinde 8 hedef sözcük öğretilmiş ve hedef sözcüklerin de içinde bulunduğu okuma parçaları okutulmuştur. Okuma parçasının ardından kontrol grubu haricindeki gruplara etkinlik yaptırılmıştır. Tüm gruplara 2şer bölümden oluşan (algıya dayalı bölüm ve üretmeye dayalı bölüm) aynı test ön test, son test ve dört hafta gecikmeli test olarak 3 kez verilmiştir. Son olarak uygulamalardan 6 hafta sonra akılda kalmayı ölçmek için iki uygulama halinde öğretilen toplam 16 kelime tek bir testte öğrencilere verilmiştir.

Araştırmadan elde edilen bulgulara göre gruplar kendi içinde incelendiğinde tüm gruplarda ön test ile son testler arasında hem algıya dayalı hem de üretmeye dayalı bölümlerde istatistiksel olarak anlamlı bir başarı artışı ortaya çıkmıştır. Algıya dayalı bölümler için uygulamanın hemen ardından verilen ve uygulamadan dört hafta sonra verilen son testler arasinda kontrol grubu dışındaki hiçbir grupta anlamlı başarı düşüşü görülmemiştir. Üretmeye dayalı bölümde ise uygulamanın hemen ardından verilen ve uygulamadan dört hafta sonra verilen son testler arasında algıya dayalı etkinlik alan grup dışındaki tüm gruplarda anlamlı başarı düşüşü görülmüştür.

Gruplar birbirleri ile kıyaslandığında ise hem algıya dayalı hem üretmeye dayalı bölümler için farklı zamanlarda uygulanan testlerde farklı etkinliklerin öğrenim üzerinde etkisi olmadığı ancak etkinlik alınmasının öğrenim üzerinde anlamlı ve pozitif bir etkisi olduğu görülmüştür.

Uygulamalardan 6 hafta sonra verilen ve her iki uygulamada öğretilen sözcüklerin tamamını içeren (16 hedef sözcük) toplam akılda kalmayı ölçme testinde de benzer sonuçlar elde edilmiş, grupların algıya ve üretmeye dayalı testlerde birbirlerinden anlamlı farklılık göstermediği ancak etkinlik almanın yine öğrenim üzerinde anlamlı ve pozitif bir etkisinin olduğu saptanmıştır.

Sonuç olarak bu çalı̧̧mada kelimenin akılda kalıcılığının arttırılması için öğretim sonrasında etkinlik yaptırılması gerektiği ancak yaptırılacak etkinlik türünün önemli olmadığı sonucuna ulaşılmıştır.

ANAHTAR KELİMELER: Algıya ve/veya Üretmeye Dayalı Etkinlikler, Yabancı Dilde Kelime Öğrenimi

# M.A. THESIS ABSTRACT 

THE EFFECTS OF RECEPTIVE AND PRODUCTIVE TASKS ON
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This study was designed to investigate the effects of receptive and/or productive tasks on vocabulary gains. The study included two successive word sets to confirm the results. Four groups of students at the same proficiency level, lower-intermediate, were randomly assigned to different task groups: one group for receptive, one group for productive, one group for mixed (receptive+productive), and one control group, which did not receive any of the tasks. 127 students were present in the application of word set I, and 117 students were present in the application word set II.

8 target words were explicitly taught in each word set. Then, students read a text in which they could see the target words. Following that, they received tasks, except the control group. All students were tested on both same receptive and productive tests just before, immediately after and four weeks after the application of each word set. Finally, a total retention test for 16 target words dealt with in word set was administered six weeks after the applications.

The results revealed that all groups showed a statistically significant increase in their scores both in receptive and productive parts from pre test to
post tests. With regard to receptive tests, no significant decrease was observed in task groups from immediate to delayed post test; however, the control group could not maintain its gains and decreased its scores significantly over time. In the productive tests, on the other hand, although receptive group was able to retain its gains from immediate to delayed post test, there was a significant decrease in the other groups over time.

When the scores were investigated between groups, no significant effect of different tasks on students' vocabulary gains was found in receptive and productive tests applied at different intervals. However, receiving any of the tasks had a significant positive effect on receptive and productive gains of the students because task groups were significantly better than the control group, which always received the lowest scores.

The results of the total retention test which included 16 target words together and which was applied 6 weeks after the applications of the word sets revealed that there was no significant difference in receptive and productive tests between the task groups. However, all groups receiving tasks were significantly different from the control group as they had significantly better scores than the control group.

The findings of this study may confirm the importance of tasks as it proved just presenting target words was not enough to retain vocabulary over time. The type of task (receptive and/or productive) was not found to have divergent effects on vocabulary retention, though.

KEYWORDS: Receptive and/or Productive Tasks, Foreign

## Language Vocabulary Learning

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## JÜRİ VE ENSTİTÜ ONAYI

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## CHAPTER 1

## INTRODUCTION

> "Vocabulary knowledge is knowledge; the knowledge of a word not only implies a definition, but also implies how a word fits into the world."

Stahl (2005:95)

### 1.1. Introduction

Knowledge of vocabulary is so important that no matter how you behave, what you do or what kind of a person you are, the words you use determine who you actually are as Stahl (2005:95) says, "To a large extent, the words we know and use are who we are. Words can define, to the outside world (and maybe even to ourselves), how smart we are (or think we are), what kinds of jobs we do, and what our qualifications for jobs might be". What is more, sometimes meanings of the words can convey much more than we think (Harmer, 1991). As known by many learners of English, one of the most basic words, "a book" is a number of pieces of paper, usually with words printed on them, which are fastened together and fixed inside a cover of stronger paper or cardboard. However, "to book" means "to reserve" or "to charge". "To cook the books", on the other hand, refers to "changing figures or a written record in order to deceive people" (definitions from Collins COBUILD Dictionary). In that sense, it is generally not enough to know a simple definition of a word.

Although there is a tendency to see vocabulary knowledge as consisting of isolated, memorized information about the meanings of specific words, such a concept is clearly inadequate since a variety of types of knowledge about
words contributes to word knowledge (Richards, 1976; Schmitt, 2000; Nation, 2001; Laufer \& Golstein, 2004).

### 1.2. What does it mean to know a word?

Research in second or foreign language acquisition has been focusing on lexical development for a few decades (Richards, 1976; Prince, 1996; Zimmerman, 1997; Paribakth \&Wesche, 1999; Henriksen, 1999; Qian, 2000; Bogaards, 2001; Read \& Chapelle, 2001; Barcroft, 2004; Zareva, et al, 2005; Zareva, 2005, etc.), and it has been understood that total language proficiency is much more than just grammatical competence (Schmitt \& Meara, 1997) and vocabulary acquisition is an essential component of second language proficiency (Harley, 1996). Although language learners generally think that vocabulary learning is one of the simplest aspects of foreign language acquisition, it is, in fact, extremely complicated (Schneider, Healy \& Bourne, 2002). Therefore, the question to be asked is what it means to know a word.

Despite the fact that a lot of research has been made to define what it means to know a word, defining word knowledge is still an uncompleted task. Many researchers agree that knowing a word is not an all-or-nothing proposition (Melka, 1997; Laufer, 1998, Laufer \& Paribakht, 1998; Nation, 2001) and investigators should interpret lexical knowledge as a continuum consisting of several levels and dimensions of knowledge (Melka, 1997; Laufer \& Paribakht, 1998).

Schneider et al. (2002) suggest vocabulary knowledge includes at least four interrelated component subtasks. First of all, the acquisition of the ability to
produce (i.e., to pronounce or to write) unfamiliar words in the foreign language is a must for the learner. After having the ability to produce the words, the learner needs to differentiate these newly-learned L2 words from one another. Following that, the connections between these L2 words and their L1 equivalents must be made to be able to use these connections bidirectionally in the next step (i.e., given the L1 word the learner must be able to produce the L2 equivalent and, conversely, given the L2 word the learner must be able to produce the L1 equivalent). Different from Schneider et al. (2002), Stahl (1999; 2005) stresses that to know a word means to know how a word functions in different contexts.

Apart from these, to some scholars (Hartmann, 1946; cited in Melka, 1997), some familiarity associated with a word is an indicator of vocabulary knowledge; in other words, 'familiarity' will show a subject 'knows' that word. Melka (1997:85) states that the notion of familiarity or degrees of knowledge might be considered as a measurement concept starting with first encountering a word, which only enables a subject to recognize the word visually in a context, its length, but not to produce or reproduce it because at this point it is difficult to say whether the word is already stored in the mental lexicon or not. Certain degrees of knowledge, in other words higher degrees of familiarity, is close to productive knowledge in both L1 and L2, which suggests knowing various meanings of a polysemous word and knowing collocations or idiomatic usage of these words. A very high degree of familiarity can be ensured by having phonological, morphological, syntactic, and lexical information about a word.

Schmitt (2000) draws attention to the fact that words are not learned immediately at once, rather through a period of time and a number of exposures. During those exposures and duration, some of the words seen in a text or heard in a conversation can be recognized and understood but not produced, which indicates there are different degrees in knowing a word (Schmitt, 2000). Although many researchers agree on the distinction between vocabulary used for comprehension (receptive vocabulary) and vocabulary used for production (productive vocabulary) (Melka, 1997; Laufer, 1998; Laufer \& Paribakht, 1998; Ellis \& He, 1999; Hulstjin \& Laufer, 2001; de la Fuente, 2002; Lee; 2003; Webb, 2005; Barcoft, 2004; 2006;), it is quite controversial to define the clear cut distinctions between receptive and productive knowledge (Laufer \& Goldstein, 2004). Further, it is highly impossible to find a sufficient and precise definition of what is meant by reception and production (Melka, 1997).

Despite being imprecise, some scholars make a distinction between receptive and productive vocabulary knowledge. For example, Schmitt (2000), Nation, (2001), Laufer and Goldstein (2004) and Kamil \& Hiebert (2005) define "receptive knowledge" as being able to understand a word, and "productive knowledge" as producing a word spontaneously, freely and without being asked. Laufer and Goldstein (2004) associate passive knowledge with listening and reading as the subjects are able to comprehend the input by perceiving the form of the word and retrieve its meaning(s); and associate active vocabulary with speaking and writing as the subjects can retrieve the spoken or written form of the meaning to be expressed.

Depending on this information, Laufer (1998) investigates word knowledge within three components: the basic receptive (passive) knowledge, i.e. understanding the most frequent and core meaning of a word such as. 'solution' as in 'solution of a problem' rather than 'chemical solution'; and two types of productive knowledge: controlled production i.e. producing words when prompted by a task; and free production which includes the use of words at one's free will, without any specific prompts for particular words.

This study addresses the issue of knowing a word with a focus on receptive and productive knowledge in Laufer's terms. Productive knowledge was assesses through "controlled production".

### 1.3. Statement of the Problem

Many researchers have focused on the vocabulary gains of the students in different conditions and their effects on language proficiency. According to the research, vocabulary levels of the learners are found to be closely correlated with their language proficiency (Nation \& Maera, 2002): the higher the proficiency levels, the more vocabulary knowledge (Laufer \& Nation, 1999; Fan, 2000; Vidal, 2003) and the higher the vocabulary size the learners have, the better they are in reading comprehension (Anderson \& Freebody, 1981; cited in Laufer, 1997, 1998; Nagy, 1988; 2005; Stahl, 1999; Zhang \& Annual, 2008). Vocabulary knowledge has been found to be the most crucial factor in interpretation of what has been read (Laufer \& Sim, 1985). Vocabulary knowledge is found to be a key factor in productive skills. Vocabulary size is also a good predictor of writing quality (Astika, 1993; cited in Laufer, 1998).

Many evaluation criteria, such as ESL Composition Profile (Jacobs, Hartfield, Wormouth; 1981), which involve 15 points out of 100 for vocabulary use, pay attention to learners' lexical knowledge.

The research reveals that the majority of vocabulary is learned receptively through reading or listening (Jenkins, Stein, \& Wysocki, 1984; Nagy, Anderson, \& Herman, 1987; Nagy \& Herman, 1987; Nagy, Herman, \& Anderson, 1985; cited Webb, 2005). Students are presented the new items and practice them in vocabulary activities which are generally receptive tasks, such as looking up words in a dictionary, matching words with the definitions, guessing from context, learning from word pairs, and odd one out activities. All these are quite common and popular in language classes. However, students are hardly required to use new words in sentences or to do word writing tasks, which promote productive learning.

In our school at School of Foreign Languages at Anadolu University, where an intensive language program is implemented, students deal with different tasks in their reading course books to practice newly learned words. These tasks are matching words with definitions, learning from word parts, odd one out, multiple choice tests, which are receptive tasks. On the other hand, in some parts of the book, they complete sentences with the target words as production. However, the number of these tasks requiring production is very restricted. In addition, students are not supposed to use these words in their own sentences as production in classes. The goal of vocabulary teaching in our context is to recognize the word formation, structure and part of speech of unknown words and to use these words in appropriate contexts because the
main goal of our program requires learners to comprehend and react to what they read and hear, and to express themselves through written and oral language to communicate effectively in various academic, professional and social contexts. Therefore, both receptive and productive vocabulary knowledge is important for our context. That's why we need to identify the most effective ways of activating both receptive and productive knowledge. As discussed in Webb (2005) we could say if the main goal of our program is to increase production, receptive tasks may be less beneficial, or if we spend so much time and energy on receptive tasks in classes and make the vocabulary learning predominantly receptive, learners are more likely to gain receptive knowledge than productive knowledge.

Despite its importance, only few studies focus on the effects of receptive and productive tasks, and they reveal contradicting results. In addition, the researcher hasn't found any studies which compare receptive, productive, mixed (receptive+productive) tasks for the development of receptive and productive vocabulary knowledge. Further, none of the studies within the reach of the researcher included a control or no- task group to observe vocabulary development without tasks. Another point is that none of the studies investigated were conducted to find out the effects of receptive and productive tasks applied after explicit teaching of the target words. Therefore, little is known about how tasks contribute to the development of vocabulary knowledge in L2. Most research on reception and production has focused on either receptive and productive vocabulary size or whether receptive knowledge gained before productive knowledge, but there is no consensus on which tasks -
receptive or/and productive- contribute more to vocabulary development in a foreign language.

To sum up, because vocabulary knowledge has been found to be related to many aspects of learning a foreign language, and both receptive and productive vocabulary knowledge are important for our context, what should be done to enhance vocabulary gains in language classes is a crucial question needed to be answered. All these questions and controversial results of the previous studies inspired the researcher to scrutinize the different effects of receptive and/or productive tasks on vocabulary development.

### 1.4. Aim of the study

The main focus of this study is to provide empirical evidence on how receptive and/or productive learning tasks affect L2 vocabulary gains. This inquiry will help to shed some light on to the effects of tasks on lexical gains. It will also help language teachers to gain insight into the use of different tasks and increase their awareness of vocabulary teaching.

### 1.5. Research Questions

In the line of the aim stated, the following research questions were investigated. The groups were named as "receptive task group", "productive task group", "mixed task group" and "control group" according to the tasks they received.

1. Do groups receiving receptive, productive, and mixed tasks respectively and the control group differ within themselves in terms of receptive and productive vocabulary gains of the students?
a. Are there any significant differences in the students' receptive and productive vocabulary gains within 'the receptive task group' from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post-test?
b. Are there any significant differences in the students' receptive and productive vocabulary gains within 'the productive task group' from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post test?
c. Are there any significant differences in the students' receptive and productive vocabulary gains within 'the mixed task group' from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post test?
d. Are there any significant differences in the students' receptive and productive vocabulary gains within 'the control group' from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post test?
2. Are there any significant differences in the students' receptive vocabulary gains among the groups from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post test?
3. Are there any significant differences in the students' productive vocabulary gains among the groups from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post test?
4. Do the groups differ in receptive and productive vocabulary gains when a total retention test is applied six weeks after dealing with the word sets?

## CHAPTER 2

## LITERATURE REVIEW

### 2.1. Introduction

This chapter will cover the review of what has been done so far on vocabulary teaching, in terms of receptive and productive development in second or foreign language teaching and learning. As the first step, it is worth mentioning the dimensions of word knowledge. Then, the chapter will cover the receptive and productive vocabulary knowledge as a continuum, receptive and productive tasks, relevant studies, and teaching vocabulary.

### 2.2. Dimensions of Word Knowledge

There is a clear tendency among the L2 vocabulary researchers that they no longer view vocabulary knowledge as a single dimension. Instead, there is a growing consensus that vocabulary knowledge should be regarded as a multidimensional construct (Richards, 1976; Henriksen, 1999; Read, 2000; Nation, 2001; Qian, 1999, 2002; Chapelle, 1999; cited in Qian \& Schedl, 2004).

When describing word knowledge, one may choose either a description of many separate traits including all aspects of word knowledge or a global description (with two or three dimensions). In this part, these models will be discussed in detail.

Some researchers (e.g., Richards, 1976; Gass \& Selinker, 2001; Nation, 2001) propose models of word knowledge which consists of separate traits (known as separate trait models). This model divides lexical knowledge into a set of
descriptive criteria. For example, Nation (2001) listed the aspects of the lexical knowledge in four categories: form (spoken and written form), position (grammatical behavior and collocation patterns), function (word frequency and appropriateness), and meaning (conceptual content and word associations). The descriptive criteria proposed in the separate trait model have been challenged because, even though it is theoretically possible to describe the distinct aspects of word knowledge, it is not clear in practice how to identify those separate traits since it is hard to design a test measuring all of the traits for words based on the model (Zareva et al., 2005).

Other existing models which promote several dimensions for description of the lexicon as a whole are referred as global trait models. The model proposes smaller numbers of measurable dimensions which reflect the overall state of learners' vocabulary (Meara, 1996; cited in Choi, 2007). In this model, the L2 vocabulary knowledge is examined in two or three dimensions. For example, some researchers suggest two aspects of breadth and depth (Qian, 1999; Read, 2000; Qian \& Schedl, 2004). Vocabulary breadth is associated with vocabulary size, and vocabulary depth is connected with quality of knowledge (Qian; 1999). In other words, vocabulary breadth is defined as the number of the words the meaning of which a learner has at least some superficial knowledge, and depth of vocabulary knowledge is described as how well a learner knows a word (Qian \& Schedl, 2004). The depth dimension should cover such components as pronunciation, spelling, meaning, register, frequency, and morphological, syntactic, and collocational properties (Qian; 1999). Apart from those, Henriksen (1999) suggests that the construct of lexical competence should
consist of three dimensions: a "partial-precise knowledge" dimension in which levels of knowledge equal to different levels of word comprehension, a "depth of knowledge" dimension which also covers knowledge components identified in the vocabulary depth dimension discussed above (e.g., Qian, 1999; Qian \& Schedl, 2004), and a "receptive-productive" dimension which concerns how well a learner can access and use a word. According to Henriksen (1999), when learners cannot use a word correctly or cannot access it freely for production it does not mean that they do not "know" the word; but they have not yet achieved adequate control over word access. The receptive and productive dimension of lexical knowledge is "a bridging dimension between lexical competence and performance" (Zareva et al., 2005:570).

It is generally thought that when learners are presented with the target vocabulary, the word forms are acquired effectively. However, there is a receptive-productive continuum involved in learning a word, and cognitive processes including receptive processing (for comprehension) and productive processing (for production) (De la Fuente; 2006:270). To Schmitt (2000:4), people can understand some words when they read them in texts or hear them in conversations even though they are not capable of producing them while writing or speaking, which shows the different degrees of knowing a word. Although many researchers accept the distinction between receptive and productive vocabulary knowledge as they see there are differences in the amount of the ability one has to master the words while using them in comprehension and production, there is not a simple and clear definition of what is actually meant by reception and production (Melka, 1997; Henriksen, 1999; Read, 2000;

Schmitt, 2000; Laufer \& Goldstein, 2004). Some researchers use interchangeable terms for the receptive and productive vocabulary knowledge. For example, Melka (1997) indicates the abundance of expressions used to describe the two notions, such as passive vocabulary, or vocabulary for comprehension or understanding, or recognitional vocabulary for 'receptive vocabulary'; active vocabulary, or words used for production, or actual or possible use for 'productive vocabulary'. Read (2000) implies the same meaning of recognition and recall with receptive and productive knowledge respectively. To be brief, in spite of the growing interest in the issue, there is no consensus among the researchers regarding the precise definition and exact terms to handle receptive and productive vocabulary knowledge.

Up to now, many scholars have made definitions from different perspectives for receptive and productive vocabulary knowledge. "Receptive knowledge" is defined as "being able to understand a word" (Schmitt; 2000); and it includes words which can be understood or recognized as individuals can assign their meanings while listening or reading (sometimes imperfectly) and which are also less well-known and less frequent in use and not used spontaneously (Hiebert \& Kamil; 2005); it is the ability to perceive the form of the word and to retrieve its meaning(s) (Laufer and Goldstein; 2004); it entails going from the form of a word to its meaning (Nation; 2001); it is the knowledge of the meaning of an L2 word; prototypically, being able to translate a word from L2 to L1 (Mondria \& Wiersma; 2004); and it refers to the ability of the learners to understand a word's meaning (Read; 2000). In regard to productive vocabulary knowledge, it includes the production of a word of "one's own
accord" (Schmitt; 2000:4); it refers to words that can be written or spoken frequently without hesitation as they are well-known and familiar (Hiebert \& Kamil; 2005); it requires retrieving the appropriate spoken or written word form of the meaning to be expressed (Laufer \& Goldstein; 2004); it includes being able to express a concept by means of an L2 word; prototypically, being able to translate a word from L1 to L2 (Mondria \& Wiersma; 2004); and it also refers to eliciting the target word from one's memory with some stimulus (Read; 2000).

This study will focus on "receptive and productive" dimensions following Henriksen’s (1999) lexical competence construct. Within the scope of this study, the effects of different tasks on receptive (Read, 2000) and productive (Read, 2000) vocabulary knowledge gains were investigated.

### 2.3. Receptive vs. Productive Vocabulary Knowledge

As many researchers agree, knowing a word is not an "all-or-nothing proposition" (eg: Melka, 1997: 87; Laufer, 1998: 256; Laufer \& Paribakht, 1998:366; Nation, 2001:144) and the commonly accepted definitional qualitative differences between receptive and productive vocabulary knowledge does not mean that these two types of knowledge are totally independent from each other as a dichotomous entity (Choi, 2007), and that learners have two separate vocabulary in their minds. In other words, learners do not have different stores to keep these words in their mind. As illustrated in Figure 2.1, Waring (2002) refers to a continuum of development explaining the vocabulary development in a degree showing the more knowledge of a word brings more improvement along the continuum of knowledge.


Figure 2.1. A scale or continuum of knowledge (Waring, 2002)

From this perspective, as seen in figure 2.2., it is assumed that receptive knowledge precedes productive knowledge (Henriksen, 1999; Waring, 2002) or in other words lexical learning progresses from receptive to productive knowledge (Laufer, 1998).


Figure 2.2.A continuum of receptive and productive vocabulary knowledge (Waring, 2002)

However, Henriksen (1999) states that drawing a precise and welldefined line between receptive and productive vocabulary knowledge would be suspicious due to the uncertainty of the dividing threshold showing where a word belongs to receptive or productive knowledge. A different model presenting vocabulary acquisition based on a three dimensional continuum proposes a development in some kind of hierarchical order (Henriksen, 1996; cited in Waring, 2002).


I The partial-precise continuum
II The receptive-productive continuum
III The depth-of-knowledge continuum
Figure 2.3.A model of vocabulary acquisition (Henriksen, 1996 cited in Waring, 2002)

In this model, Henriksen suggests that knowledge starts with initial word recognition including preliminary characterization or indefiniteness in the better explanation of the meaning, which means a person goes further along the continuum when the word meaning is known better (Henriksen, 1999). The development occurs in some kind of hierarchical order. The partial-precise continuum, associated with a "mapping process" (i.e., creating extensional links via both labeling and packaging), refers to a knowledge continuum through which different levels of understanding or comprehension are operationalized (Henriksen, 1999). The receptive-productive continuum, a control continuum referring to "a bridging dimension between lexical competence and performance" (Zareva et al., 2005), describes the ability of managing variant
levels of access or use in various kinds of receptive and productive tasks (Henriksen, 1999). The depth-of-knowledge continuum, allied with "network building" (i.e., creating intensional links) requires referential meaning, pragmatic and syntagmatic relationships of the words (Henriksen, 1999). Thus, in this three-dimensional continuum, lexical knowledge develops in a hierarchical order moving from initial word recognition to mastery of meaning along both the partial to precise and the depth continuum while receptive knowledge moves toward complete productive control by reorganizing or restructuring the lexicon.

While there is a hierarchy in lexical development, it does not necessarily mean that the development of knowledge is linear. Melka (1997) suggests while some aspects of some words turn out to be productive, others may remain receptive and adds that it is most useful to think in terms of a receptive to productive continuum, representing increasing degrees of familiarity with a word; in other words it is not a smooth or linear process. Therefore, apart from the definitional differences, there are some qualitative distinctions in terms of learning order, size, gap, efficiency and performance level between the receptive and productive vocabulary knowledge.

Many researchers predict that receptive knowledge normally precedes productive knowledge, and the act of learning a word usually progresses from receptive to productive knowledge (e.g., Meara, 1996; Nation, 1990, cited in de la Fuente, 2002; Read, 2000; Schmitt, 2000). However, it does not mean that receptive knowledge automatically predicts its production after presentation. On the contrary, it might take a long time for a word to become productive, or
maybe, it will never turn out to be a part of productive knowledge (Laufer \& Paribakht, 1998) given that only a limited number of words known receptively can be used productively (Henriksen, 1999).

Regarding receptive and productive vocabulary size, Laufer (1998) found that L2 receptive vocabulary knowledge developed to a higher extent than productive vocabulary knowledge and indicated a ratio of $84 \%$ vs. $50 \%$ with the development of L2 receptive and productive knowledge among the $10^{\text {th }}$ and $11^{\text {th }}$ graders. Laufer \& Paribakht (1998) found that active, particularly free active, vocabulary that the learners used in writing a composition on a given topic, was slower and less predictable than the development of passive vocabulary. Their results also pointed out that passive (receptive), controlled active (controlled productive-first few letters of the target words are provided in a sentence) and free active (free productive- in free written expression) vocabulary of the learners developed at different rates: the development of productive vocabulary (both controlled and free) was slower and less predictable than the development of receptive vocabulary. In many studies (e.g., Aitchison, 1989, Channell, 1988; cited in Laufer \& Paribakht, 1998; Lee, 2003; Kamil \& Hiebert, 2005) productive vocabulary levels of the students were found to be significantly lower than their receptive vocabulary.

With regard to the gap between receptive and productive vocabulary knowledge, previous research demonstrates a positive relationship showing that an increase in one's passive vocabulary will, on the one hand, lead to an increase in one's active vocabulary, but on the other hand, lead to a larger gap owing to a greater increase in the rate at which the passive vocabulary develops (Laufer,
1998). Similarly, the evidence gained from Fan's (2000) study which aimed to explore the gap between active and passive vocabulary knowledge by giving them active and passive vocabulary tests shows that among the students who were able to recognize more words, only some of them were able to recall more of these words.

When the receptive and productive learning compared in terms of vocabulary learning efficiency, L1 to L2 pairs (productive learning) may be more effective than L2 to L1 learning (receptive learning) (Griffin, 1992, cited in Nation, 2001), but receptive learning is easier than productive learning (Griffin, 1992, cited in Nation, 2001; Schuyten, 1906; cited in Mondria \& Wiersma, 2004). Moreover, productive learning takes more time than receptive learning (Waring, 1997).

In an attempt to find the difference in the performance levels of the students in receptive and productive tests, students were found to have a greater performance in (both immediate and delayed) receptive tests than they did in productive tests (Waring, 1997; Schneider et al.,2002). In the literature, on one hand it is claimed that receptive learning led to a certain amount of productive knowledge, and productive knowledge led to a considerable amount of receptive knowledge; productive knowledge, on the other, is said to decay faster than receptive knowledge (Waring, 1997), suggesting that words that are learned in the more difficult productive way are less susceptible to forgetting (Schneider et al. 2002).

To sum up, despite the commonly accepted differences between receptive and productive vocabulary knowledge, the relationship between L2
learners' receptive and productive vocabulary is still vague and unconfirmed, and it still remains interesting but unexplored (Laufer \& Paribakht, 1998). The development of receptive and productive vocabulary is important in both ESL and EFL classes as Laufer (1998) states "if not pushed to use these words, some words may never be activated and therefore remain in passive vocabulary only". Also, the relationship between these two can importantly help both pedagogy and second language acquisition (SLA) research as it may present implications for teaching vocabulary by giving clues about the nature of lexical knowledge, which in turn may have implications for teaching vocabulary (Laufer \& Paribakht, 1998). Therefore, the current study will examine receptive and productive vocabulary knowledge gains and handle the issue focusing on the vocabulary gains developed through receptive and/or productive tasks.

### 2.4. Receptive vs. Productive Tasks

The reason behind the difference between the receptive and productive tasks is the distinction between receptive and productive vocabulary knowledge. In literature, receptive tasks are classified in a group including multiple-choice tests (Paribakht and Wesche, 1997; Henriksen, 1999; Webb, 2005), matching the target word with a definition or synonym, guessing from context, learning from word pairs (L2-L1 pairs) or seeing or hearing the target word in the L2 and giving its equivalent in L1 (Paribakht \& Wesche, 1997; Webb, 2005), choosing the correct picture after hearing or seeing the target word or choosing the right word to label a picture, finding the odd word in a series of collocationally related words (Paribakht \& Wesche, 1997). In regard to productive tasks, the list
includes seeing or hearing the L1 equivalent or an L2 synonym and providing the target word (Paribakht \& Wesche, 1997; Henriksen, 1999; Webb, 2005), close exercises, (Paribakht \& Wesche, 1997; Webb, 2005), labeling pictures, answering a question requiring the target word in an oral interview or retell task (Paribakht \& Wesche, 1997; Henriksen, 1999), finding the mistake in idiom use in a sentence and correcting it (Paribakht \& Wesche, 1997) and fill-in-blank task (Paribakht \& Wesche, 1997; Webb, 2005; Hulstjin \& Laufer, 2001). While in some studies the fill-in-blank tasks are called "productive" (e.g., Paribakht \& Wesche, 1997; Webb, 2005), some others call them "controlled productive" (e.g., Hulstjin \& Laufer, 2001). For some, free writing activities are production (e.g., Laufer \& Paribakht, 1998) whereas some accept writing L1 to L2 counterparts as production (e.g., Mondria \& Wiersma, 2004; Choi, 2005).

As seen, despite little diversity, the tasks do not differ in terms of language output. However, the diversity in the tasks used in the previous studies may be the reason why there is no clear and commonly accepted effect of the receptive and productive tasks on vocabulary gains. In the following part, the studies which are conducted to find the effects of receptive and productive tasks on vocabulary development will be reviewed.

### 2.5. Studies Conducted on Receptive vs. Productive Vocabulary Tasks

Despite the importance of vocabulary knowledge in language proficiency (Laufer \& Nation, 1999; Fan, 2000) and reading comprehension (Anderson \& Freebody, 1981; cited in Laufer, 1998) and productive skills, a very limited number of research has focused on receptive and productive
vocabulary tasks on vocabulary development. In this part, these studies will be reviewed briefly.

In their study, Schneider et al. (2002) wanted to find out whether greater difficulty while learning the target words would bring superior retention and transfer of the learned material or not. They composed two experiments with American college students who were given a set of French words to learn. In each experiment, while half of the students learned the words receptively (L2 to L1 equivalents) and took an immediate receptive retention test, the other half of the students learned productively (L1 to L2 equivalents) and took an immediate productive retention test. After a week, half of the students of each group relearned the words receptively and were tested receptively while the other half relearned the words productively and were tested productively. The results indicated that both in learning and relearning trials receptive learning was more successful than productive learning: the receptive retentions test results were higher than productive ones. It was also revealed that while receptive learning led to certain amount of productive knowledge, productive learning led to a considerable amount of receptive knowledge. Besides these, words learned receptively decayed faster than the ones learned productively, which implies the words learned under more difficult ways, are less probable to be forgotten.

Mondria and Wiersma (2004) conducted a small scale research among 90 Dutch foreign language teachers to investigate whether the idea that the combination of receptive and productive learning leads to better receptive knowledge than receptive learning alone and found that $83 \%$ of them agreed with this idea. To confirm or refuse the notion, Mondria \& Wiersma (2004)
combined three types of learning (receptive; productive; receptive + productive) with two types of testing (receptive-L1 translation- or productive-L2 translation). The words were presented to 198 Dutch students learning French in two columns without context: from French to Dutch for receptive learning; and from Dutch to French for productive learning. For the combination of receptive and productive learning on the front of the sheet the words were presented from Dutch to French, and on the back side the words were presented from French to Dutch, but in a different order. With regard to receptive retention, the results revealed that the two learning types, receptive+productive learning and receptive learning did not show a significant difference. As for the productive retention, again, the two learning types, receptive+productive learning and productive learning did not show a significant difference. The receptive retention as a result of receptive learning was not significantly different from that as a result of productive learning despite revealing a $16 \%$ higher retention for receptive learning. As for the productive retention, the results were significantly different for receptive and productive learning. Receptive learning was noticeably slower. Nevertheless, receptive learning led to a significant amount of productive knowledge. At the end, receptive retention proved to be significantly higher than the productive retention. Receptive learning followed by receptive testing led to a significantly higher retention than productive learning followed by productive testing confirming that productive learning is more difficult.

Aiming to find out the effects of three different tasks involving different involvement loads on vocabulary retention, Hulstjin and Laufer (2001) gave ten
low-frequency words to advanced EFL learners. The students were divided into three groups to complete three different tasks. First group of students read a text with the target words glossed in L1 in the margin and answered the comprehension questions. Second group of students read the same text with the target words deleted and answered the same questions. They were required to fill in the gaps choosing a word from a list of 15 words (including 5 distracters) with their L1 translations. The last group wrote a composition using the target words given with their explanations and examples of usages. The results pointed out that amount of retention was relative with the amount of the tasks' involvement load since retention was highest in the composition task, lower in reading plus fill-in, and lowest in the reading.

In his study, Waring (1997) examined the effects of receptive and productive learning on receptive and productive vocabulary gains. He gave 72 Japanese students learning English as a foreign language 30 words. Half of the students learnt half of the target words receptively, from their L2 to L1 equivalents, while the other half of them learnt the other 15 words productively from their L1 to L2 equivalents. Students were tested on translations tests: from L 2 to L 1 as receptive, from L1 to L2 as productive on the same day, following day, after one week, and after three months. The results of the study revealed that receptive learning was better for receptive, and productive learning was better for productive tests. However, no significant difference was found in receptive and productive gains between the groups when their scores were compared on each post test.

Contrary to the studies showing positive effects of productive vocabulary learning tasks, there are a few studies indicating a negative effect of production on vocabulary instruction. For example, Webb (2005) conducted two experiments to find the effects of receptive and productive tasks on vocabulary learning. In the first experiment, in which 10 nonsense words were focused on, half of the learners were asked to read three glossed sentences, in each of which they could see the target word. Each word was given with its L1 translation above the three glossed sentences as a receptive task, and the other half of the learners to write a sentence with the target words given again with L1 translation above as a productive learning task. The time allocated for both groups was 12 minutes. Both groups were tested receptively and productively just after the treatment. The results of the study revealed that the receptive task group outperformed the productive task group on both receptive and productive measures.

In the second experiment, including a total of 20 low-frequent words, one experimental group completed both receptive and productive tasks without time limitation. Half of the learners completed the productive task first; the other half completed the receptive task first. Half of the learners did the receptive and productive tasks with set A of the target words ( $\mathrm{n}=10$ ), and the other half had set $B(n=10)$. Immediately after completing both treatment tasks, the learners were administered the same receptive and productive tests. The results showed that different word sets (nonsense words and low-frequent words) and learning order had no significant effect, but writing task led to significantly higher scores than reading tasks in both tests. The differences
between the results of the two experiments may be due to the time limitation given in the first experiment.

Similarly, the studies conducted by Barcroft $(2004,2006)$ show negative effects of production on L2 lexical acquisition. To find the effects of sentence writing on L2 lexical acquisition, Barcroft (2004) carried out two experiments focusing on 24 Spanish nouns. In the first one, half of the students were required to learn half of the words by seeing the words and pictures (receptive learning) and the other half of the words by looking at pictures and writing sentences for each (productive learning) and the other half of the students were given the reverse. 48 seconds were allocated for each word in each group. A recall test with pictures was given to students immediately and two days after the learning sessions. The results indicated that writing new words in sentences strongly negatively effects L2 lexical acquisition. The second experiment, conducted to examine whether the effects observed were due to differences in presentation order, again revealed a negative effect of writing new words in sentences on L2 lexical acquisition.

Barcroft (2006) conducted another study including again two experiments with 24 Spanish nouns again to find out the effects of production on L2 lexical acquisition by giving words with pictures as receptive learning and word-writing with pictures as productive learning. In the first experiment, half of the students learned 1-12 words in no-writing condition with pictures and 13-24 in word writing condition, whereas the other group learned 1-12 words in word-writing condition and 13-24 in no-writing condition. The time allocated for both sessions was same in both groups (6 seconds per word).

Students were tested immediately and two days after the learning sessions via a recall test consisting of pictures. In both experiments, results revealed that word writing had a negative effect on L2 vocabulary learning.

Following Webb (2005), Choi (2007) gave receptive and productive tasks to ESL and EFL learners to find out whether these two task types contribute to productive and receptive unknown and partially known vocabulary knowledge differently. The term 'partially known words' was used for the words students saw in two reading texts given. The meanings of the words could be derived from the context. Students were given tasks subsequently to focus on recognition of only the form of the words, by asking "Do you remember seeing this word in the text?" For receptive retention of meaning, students were required to write L1 translations of these words. In this way, they were assumed to then have an incomplete knowledge of the vocabulary, and these words were called 'partially known words'. The term 'unknown words' was used for the ones that students did not encounter before. The learners were required to read three glossed sentences, in each of which they could see the target word. Each word was given with its L1 translation above the glossed sentences as a receptive task, and the other half of the learners were asked to write a sentence with the target words given again with L1 translation above as a productive learning task. At the end, all the learners were tested both receptively (from L2 to L1 translation) and productively (from L1 to L2 translation) immediately and one week after the treatment. The results of the study indicated that receptive tasks had more facilitative effects on vocabulary gains than productive tasks for both unknown and partially known words,
except immediate receptive posttest of the partially known words on which the writing task revealed higher scores than the reading task with a significant improvement in receptive immediate and delayed test scores, which suggests that writing task is possibly beneficial for the partially known words. Also, reading tasks proved more facilitative effects in both receptive and productive tests for both EFL and ESL students, which means reading and writing tasks' effects may not be contingent on learning context.

Although in some previous studies, receptive and productive tests have been administered to measure receptive and productive gains, only few of them focused on the effect of each of receptive and productive tasks on both receptive and productive vocabulary gains. Within these few related studies, the results about the effects of tasks on lexical gains are quite conflicting. While productive tasks are much more beneficial for lexical gains for some, the other studies prove that productive tasks hinder lexical gains, and they highly recommend receptive tasks because of the negative effects of production at initial stages of learning.

### 2.6. Similarities and Differences in the Design of Previous Research

When the literature is reviewed, there seems to be no clear results to demonstrate receptive tasks are more effective than productive tasks or vice versa. While some studies reveal a positive effect of production, some reveal a negative effect. The striking controversy between these studies may be due to the differences in the way the studies were conducted. There are some really important dissimilarities in terms of treatments, subjects, target words, and tests
in these studies even though they had almost the same aim for the research. Table 2.1. represents the differences between these studies.

### 2.6.1. Treatments \& Tasks \& Time

One of the reasons that bring different results from these studies could be the variations in the tasks used in the treatments. For example, while Waring (1997), Hulstjin \& Laufer (2001) and Mondria \& Wiersma (2004) used reading with marginal glosses as receptive tasks in which learners were given the L1 translations of the target words, Barcroft $(2004 ; 2006)$ preferred using words with pictures. In addition, the tasks used by Webb (2005) and Choi (2007) required learners to read in glossed sentences. Learners saw the target word and its L1 translation with three sample sentences. As for the productive tasks, Hulstjin \& Laufer (2001) included two different tasks: first is reading with fillin (target words deleted from the text were given as a list with the words' L1 translations) and second is writing a composition and incorporating the target words (composition writing using the target words given with examples of usages). Barcroft (2004), Webb (2005) and Choi (2007) asked the learners write sentences using the target words as the productive tasks. Barcroft (2006) used pictures again and asked learners write the target words for the pictures they saw. Finally, learners in the study conducted by Waring (1997) and Mondria \& Wiersma (2004) were supposed to write L2 translations of the target words given in their L1.

Table 2.1. Summary Chart of Previous Studies Concerning the Effect of Receptive and Productive Tasks

|  | Aim of the study | Treatments | Subjects | Target Words | Tests | Results |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | to see the effects of | $\begin{aligned} & \mathrm{R}(\mathrm{~L} 2 \text { to } \mathrm{L} 1), \\ & \mathrm{P}(\mathrm{~L} 1 \text { to } 2 \text { ) } \end{aligned}$ | FL: English | Unknown words | $\begin{aligned} & \hline \mathrm{R}(\mathrm{~L} 2 \text { to L1 } \\ & \text { translation) } \end{aligned}$ | P learning takes longer |
| Waring | R\&P learning on R\&P | Time: not controlled | L1: Japanese | 30 words | P(L1 to L2 translation) | R is better in R test |
| 1997 | retention |  | 18-20 years | $\begin{aligned} & \text { (10 noun, } 10 \\ & \text { verb, } 10 \\ & \text { adjective) } \end{aligned}$ | Pt 1 (immediate) Pt 2 (following day) | $P$ is better in $P$ test |
|  |  |  | university level |  | Pt 3(+1 week) <br> Pt 4(+3months) |  |
|  |  |  | $\mathrm{n}=64$ |  |  |  |
| $\underline{2}$ | to find out the effects of three different tasks involving different involvement loads on vocabulary retention | R (reading with marginal glosses) | FL: English | Unknown | R (recall in L1 or explanation in L2) | $\mathrm{P} 2>\mathrm{R}$ \& P1 in Pt 1 \& 2 |
| Hulstjin |  | P1 (reading with fill-in) | L1:Dutch \& Hebrew | low-frequency words | Pt 1 (immediate) | in both groups |
| \& |  | P2 (composition writing) | Advanced | $\mathrm{n}=10$ | Pt 2 (+1 week) |  |
|  |  | Time: $\mathrm{R}(40-45$ mins); | University level |  |  |  |
| (2001) |  | P1(50-55 mins); | $\mathrm{n}=87$ (in Netherlands) |  |  |  |
|  |  | P2 (70-80 mins) | $\mathrm{n}=99$ (in Israel) |  |  |  |

Table 2.1.

| (Cont'd) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | to see whether | R (L2 to L1) | FL: French | Unknown | R (L2 to L) | $\mathrm{R}>\mathrm{P}$ in Pt1\&2 in all tests |
| Schneider et al., | increased difference in learning | P (L1 to L2) | L1: English | $\mathrm{n}=25$ | P(L1 to L2) |  |
| 2002 | would lead to superior | Time: not controlled | non French speaking | N | Pt (Immediate) |  |
|  | retention and transfer of the learned material |  | college students $\mathrm{n}=64$ |  | Pt (+1 week) |  |
| 4 | To find the effects of | R (words with pictures) | FL: Spanish | Nonsense words | Pt1(recall from pictures) | exp1:P<R in R Pt1\&2\&3 |
| Barcoft | sentence writing on L2 lexical | P (sentence writing) | L1: English | Concrete N | Pt2 (+2 days) | exp2: $\mathrm{P}<\mathrm{R}$ in R Pt1\&2\&3 |
| (2004) | acquisition | Time: R (4 times, $6 \mathrm{sec} / \mathrm{W}$ ); | 1st exp: $\mathrm{n}=44$ | $\mathrm{n}=24$ | Pt 3 (+1 week) |  |
|  |  | $\begin{aligned} & \text { P (once, } 48 \\ & \text { sec/W) } \end{aligned}$ | 2nd exp: $\mathrm{n}=10$ |  |  |  |
|  |  |  | University level |  |  |  |
|  |  |  | No advanced knowledge on L2 |  |  |  |


| 5 | to investigate whether the | $\begin{aligned} & \hline \mathrm{R} \text { (L2 to L1); P } \\ & \text { (L1 to L2) } \end{aligned}$ | FL: French | Unfamiliar words | R (L2 to L1) | No difference between R+P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mondria | idea that the combination | $\begin{aligned} & \mathrm{R}(\mathrm{~L} 2 \text { to } \mathrm{L} 1)+\mathrm{P} \\ & (\mathrm{~L} 1 \text { to } \mathrm{L} 2) \end{aligned}$ | L1: Dutch | $\mathrm{n}=16$ | P (L1 to L2 recall) | and R only in R retention |
| \& | of receptive and productive | Time: 15 mins for learning TW | $\mathrm{N}=198$ | (8N; 8 V ) | Pt 1 (immediate) | No difference between R+P |
| Wiersma | learning leads to better | ( $56 \mathrm{sec} / \mathrm{W}$ ) | 14-16 years |  | Pt 2 (+2 weeks) | and P only in P retention |
| (2004) | vocabulary knowledge |  | 3 years of lesson |  |  | No difference between R/P |
|  | or productive learning alone |  |  |  |  | learning in R retention |
|  |  |  |  |  |  | $\mathrm{P}>\mathrm{R}$ in P retention |
| 6 | to find the effects of receptive and | R (reading in glossed sentences) | FL: English | Exp <br> 1:Nonsense words | R (multiple choice) | $\exp 1: \mathrm{P}<\mathrm{R}$ in R \& P tests |
| Webb | productive tasks on | $\begin{aligned} & \mathrm{P} \text { (sentence } \\ & \text { writing) } \end{aligned}$ | L1: Japanese | ( $6 \mathrm{~N} ; 4 \mathrm{~V}$ ) | P (recall from cues, translation) | $\exp 2: \mathrm{P}>\mathrm{R}$ in R \& P tests |
| (2005) | vocabulary learning | Time: $\exp 1$ : $\mathrm{P}=\mathrm{R}$ (12 mins) | $\exp 1: \mathrm{n}=66$ | $\mathrm{n}=10$ | R \& P for 5 dimensions |  |
|  |  | exp 2: not controlled | $\exp 2: \mathrm{n}=49$ | Exp 2: lowfrequent | No delayed posttests |  |
|  |  |  | University level | words |  |  |
|  |  |  |  | $\mathrm{n}=20$ |  |  |



Apart from the differences in the requirements of the tasks, the tasks given during the learning process were different too. In some studies some students merely see the target word and its L1 translation as receptive tasks whereas learners in other studies are exposed to sample sentences, and therefore they have the opportunity to see how the word is used in context. Further, when students see a word in context it helps them grasp the meaning of the target word and retain it better, and the strength of learning from context lies in its long-term, cumulative effects (Nagy, Herman, Anderson, 1985) since providing a natural context is often essential in teaching students how a word is used (Nagy, 1988; Harmer, 1991, 2003), and it is the best way to ensure the word is going to be remembered and integrated by the reader (McCarthy, 1990). As for the productive tasks, writing a composition and writing a sentence with the target words do not require same effort. Writing a composition, one has to pay attention to content, organization, language use, etc. On the other hand, writing a sentence requires syntactic, semantic, lexical and pragmatic knowledge. Compared to these two tasks, just writing the L2 translations of the target words cannot be at the same difficulty level for learners.

Another point that might cause problem with the tasks in these studies could be none of them is actually teaching the target words to the learners. Even though they mention "teaching", it is actually not more than "exposure to a certain amount of time". However, explicit instruction has been found to have positive effects on learners' more accurate use of L2 polysemous words (Morimoto \& Loewen, 2007). The principals of vocabulary development bear both definitional and contextual information about each word's meaning,
learners' active participation and multiple exposures to meaningful information about the word (Stahl, 1999). Learners need to know what words mean and how they are used, which can be ensured by language teachers by giving them the names for things and showing them how words are stretched and twisted (e.g. "to table a motion" and "to chair a meeting") (Harmer, 1991). There are also word-learning strategies, such as the use of context and word parts, which can be taught to students to make them better word learners (e.g., Edwards, Font, Baumann \& Boland, 2004). Further, as Nation (2001) states making a balance between meaning-focused input, meaning-focused output, language-focused learning and fluency development is of crucial importance in designing a vocabulary component of a language teaching.

In addition to the differences between the tasks used in the treatments, there is no consistency in terms of time allocated for the tasks. While researchers set a time limit, Waring (1997) and Webb (2005) -in his second experiment- did not. Considering the work load of the tasks, it is not surprising the time limitations are not equal. However, some of the studies give equal time for receptive and productive tasks (e.g. Mondria \& Wiersma, 2004; Barcroft, 2006; Choi, 2007). Within these time limitations when the time allocated for both receptive task group required to read three glossed sentences and productive task groups asked to produce sentences for each target word is equal, it was observed that while productive task group was trying hard to complete the writing task, receptive task group had quite enough time to finish the receptive task (Webb, 2005).

### 2.6.2. Target words

The differences between the target words used in the studies may be another reason bringing the different results. Some of the studies present learners unknown or unfamiliar words (Waring, 1997; Hulstjin \& Laufer, 2001; Mondria \& Wiersma, 2004) while the others give nonsense words (Barcroft, 2004, 2006; Webb, 2005; Choi, 2007). Some studies prefer only nouns to teach (Barcroft, 2004, 2006), on the contrary, some favor both nouns and verbs (Mondria \& Wiersma, 2004; Webb, 2005; Choi, 2007), which may affect the outcome since nouns are easiest to learn (Rodgers, 1969; cited in Read, 2000). Also, the discrepancies in the syllables of the target words are different in each study, which is a determinant factor while learning the target words for the learners.

### 2.6.3. Tests

Related to the treatments, the tests used by the researchers are different in studies. All the learners in all studies receive immediate post-test and delayed post-tests (except Webb, 2005) to see the immediate and long-term effects of treatments. However, the time span for the delayed post-tests given is not same (after a week, after 2 weeks, after 2 days). Every post-test gives some prompts to learners such as pictures, L1 or L2 translations, or cues) and asks learners write the target words in L1 or in L2.

In conclusion, what the literature reveals related to the effects of receptive and productive tasks on vocabulary gains is not definite due to the contradictory results of the previous studies. The reason of the divergence in the
results previous research revealed may have stemmed from the differences in their methodologies. Different from those studies, in the current study there will be no translation tasks or tests from L1 to L2 or vice versa. The tests will be designed in accordance with the tasks created following Henriksen (1999), Paribakth and Wesche (1997) and Webb (2005) and to prevent time effects, all groups will be given equal time. Finally, different from those studies, the current study entails a teaching part (to help students understand the form, function and meaning of the words) and tasks (as a part of further practice). In the following part, the issue of teaching vocabulary will be discussed in detail.

### 2.7. Teaching Vocabulary

As mentioned earlier, vocabulary knowledge plays a crucial role in a language. If language structures made up a skeleton of language, the vital organs and the flesh would be provided by "vocabulary" because a person can explain the intended meaning even if he does not have the necessary structure; for example, "Yesterday ... I have seen him yesterday" is committing one of the most notable mistakes in English, but the meaning is clear due to the word "yesterday" (Harmer, 1991). That being so, without necessary vocabulary knowledge one cannot communicate in L2 even if he is very successful at structure or pronunciation (McCarthy, 1990). Therefore, vocabulary teaching is gaining increasing attention bringing new questions into the language classes, such as what words to teach, and how to teach them. Even though in grammar there is a learning order, the order in vocabulary learning is not so obvious. There are lists stating "fifth-grade words" or "seventh-grade words"; however,
there are no principles showing which words students need to learn at different grade levels (McKeown \& Beck; 2004). As an example, in grammar course, present perfect tense is not presented before students are taught the simple present tense and simple past tense. However, there is no such an order in teaching vocabulary since there are many factors affecting the decision of what words to teach, such as frequency (more common words to be taught first), concreteness (more concrete words at lower levels), coverage (a word is more useful when it covers more things than when it covers one very specific meaning) of the word, the topic to be discussed in the lesson, structure, function (Harmer, 1991), and teachability of the word and needs and wants of the learners (Harmer, 1991; McCarthy, 1990).

Apart from these, what is of crucial importance is the method used when teaching vocabulary. Although teaching vocabulary meant memorizing definitions or L1 equivalents of the target words, the perception has been changing. For example, Nagy (1988) says that traditional methods of instruction such as memorizing definitions should be supported with more intensive instruction aimed at producing richer, deeper word knowledge. However, today more detailed information of the target word is provided for learners rather than making them memorize definitions. Because knowing a word means far more than just understanding its meaning, learners need to have much greater information about the word to create a better understanding of the newly learned item. (Figure 2.5. represents what information learners need to know a word).


Figure 2.5. Knowing a word (Harmer, 1991: 158)

According to Harmer, firstly and most importantly, learners need to learn the meaning of the target word in context. Contextual information has critical importance on having the correct meaning of the target word because many words have more than one meaning. To illustrate, when talking about a woman in a theatre arguing at the ticket office saying "But I booked my ticket three weeks ago", it is understood that the meaning is clearly different from the meaning when uttered by a policeman (accompanied by a terribly sad man at a police station) saying to his colleagues "We booked him for speeding". Sense
relations also need to be created because some words have meanings related to other words. Therefore, when "vegetable" is taught, other related words, such as carrots, potatoes, etc. should also be taught. After teaching the meaning, some information about the use of the target word is necessary. If a word is stretched through a metaphor or idiom, or is governed by a collocation, it should be illustrated to the learners. When doing this, some information about the word's style (formal-informal use) and register should be given. In addition to these, parts of speech, prefixes and suffixes added to the word and the spelling and pronunciation rules, which are all related to word information, should be given because all these can change the shape and the grammatical value of the word. Finally, grammatical characteristics of the word, such as the information for nouns stating whether they are countable or uncountable nouns, or verb complementation ("tell" is followed by an object + to + infinitive but "say" does not work in the same way), or the order of adjectives or position of adverbs should be provided since the use of certain words can trigger the use of certain grammatical patterns (Harmer, 1991).

To ensure all the information to be given to the learners, Harmer (1991) and Thornbury (2002) suggest some crucial steps in vocabulary teaching be followed. Learners should be provided with the meaning of the words. After learning the meaning, the use of the word and its part of speech, pronunciation and spelling should be focused on. When the word grammar is also highlighted by making a distinction about what grammatical patterns the word is used in, the learners can be assumed to be presented the target word and be fully aware of its meaning, use and function.

While providing the learners with the meanings of the target words, teachers can achieve this via many ways, such as giving definition, illustration or exemplification, synonymy or hyponymy, or a combination of these types rather than just one (McCarthy, 1990). In addition, demonstrations, acting, mimes and gestures, pictures, realia, contrasting words, enumeration (listing words - vegetables: carrots, cabbage, potatoes; furniture, table, chair, etc.) or L1 translations of the words are other ways that are commonly used by teachers (Harmer, 1991). Among these, stemming from a desire to understand quickly, giving L1 counterpart of a word is truly the fastest way of verifying its meaning, and it might also bring automation by the time L2 network is adequately developed regardless of what the teacher uses to illustrate the meaning, such as pictures or L2 context (Prince, 1996). Students' beliefs about translation also revealed that it has a facilitative role in L2 learning process since it is regarded as a learning resource to comprehend, memorize and produce a better language, to acquire the necessary skills and to complete various tasks in the target language (Liao, 2006). On the other hand, Harmer (1991) emphasizes that translation is not a perfect way of presenting new words since it discourages learners from interacting with the words, and it is not always easy to find an accurate and one counterpart for each word. The learners in Liao's study (2006) expressed their concern about translation as it may lead to interference of L1 into L2, prevent them from thinking in L2, and create an assumption that each word has a one-to-one correspondence in the two languages. The results of Prince's (1996) study draw attention to the fact that translation was good for the learners with poorer language skills, but it may have a detrimental effect on
developing language skills and discourse strategies and leads to ineffective L2 learning especially when it becomes a widely used condition, despite its efficiency in terms of quantity.

Learning with L1 equivalents of the words means oversimplification of vocabulary, which brings three false assumptions about the nature of language (Fries, 1945; cited in Zimmerman, 1997). The first false assumption is that each word has an exact L1 counterpart. Conversely, only technical words can convey the exact meaning in different languages. Secondly, each word is a single meaning unit. Contrary to the assumption, English words usually have fifteen to twenty meanings. Finally, each word has a "basic" or "real" meaning, the others are "figurative" or "illegitimate". However, words derive their meanings according to the situations they are used (Fries, 1945; cited in Zimmerman, 1997).

While dealing with unknown words, one of the most frequent and popular strategies preferred by language teachers is using context (Schmitt; 2008). Stahl (1999) argues to keep the meaning(s) of the word in long-term memory and to store any information related to that word is the goal of vocabulary learning, which can be realized by a good vocabulary instruction stimulating learning from context. McCarthy (1990) also postulates that context is the best way to help learners remember and integrate the meaning of the words. It is also the primary strategy used to infer the meanings of unknown words, and students have a strong reliance on context (Frantzen, 2003). Students need to see words in context so that they can understand how words are used. In this way, learners are given new language input which enables them to see the
usage, meaning and pay attention to chunks of language (Harmer, 2003). Assessing meaning in a context also contributes to developing strategies, such as anticipating, inferencing, and it proves that words are used in discourse to communicate by providing the way the words are used in (Prince, 1996).

Despite its benefits, using context may not always be reliable while directing learners to the correct meaning, which can be ascertained by transparent, fully-informative and directive contexts (McKeown \& Beck, 2004). Not only should there be some clues familiar to the reader to help to grasp the meaning of the target word, but also the topic of the context should be familiar to the reader so that the necessary inferences could be drawn; otherwise, the existence of contextual clues wouldn't be meaningful since it would be completely impossible to benefit from them (Laufer, 1997). Words in context which is neither vague nor ambiguous should be inferable and clear enough to direct students to the exact meanings of the words in addition to being accessible to the learners in terms of the difficulty (Frantzen, 2003). Besides, students should be involved in the process of making hypothesis about meaning of the target word during the context instruction starting from what they already know or from their first look at a contextualized word and then cross-checking these hypothesis with other information given in the context (Blachowicz;1987; cited in Blachowicz; 1993).

To conclude, different from previous studies, in the current study, the target words were selected following Harmer (1991) and McCarthy (1990) considering their frequency, concreteness, coverage, and the topics discussed in the classes. Another point in which this study is fully distinctive is that the
target words were presented to the learners following Harmer (1991) and Thornbury (2002), and the steps of teaching vocabulary were succeeded and all necessary information related to meanings, word use, word information and word grammar was provided in the presentation for the learners. In giving meanings, turning to Harmer (1991) and McCarthy (1990), a combination of techniques, such as examples, definitions, pictures, acting, gestures and mimes, enumeration were used. To verify the meaning of the target words, rather than giving L1 equivalents of the words due to its negative effects (Fries, 1945, cited in Zimmerman, 1997; Harmer, 1991; Prince, 1996; Liao, 2006), some comprehension checking questions related to the context were asked. After presentation, students were given a passage in which they could see the target words to get more contextual input.

### 2.7.1. Factors affecting retention of vocabulary

What Stahl (1999) suggests as the goal of vocabulary learning is to have students store meanings in their long-term memory, and to store any kind of information about a word is not so straightforward to accomplish due to some crucial factors affecting the retention of vocabulary. Vidal (2003) has drawn attention to the fact that $77 \%$ of vocabulary retention is determined by four predictors subsequently: predictability from word form and parts (unpredictable, deceptively predictable, morphologically predictable), type of word (technical, academic, low-frequent), word elaboration (explicit, implicit or no elaboration), frequency of word occurrence.

The best predictor of vocabulary learning is the predictability of the words from their word forms or word parts with $58 \%$ of the variation in the vocabulary gain. The words' resemblance to L1 and their predictability due to their morphological structures increase the amount of predictability of the words in a correct way. However, the case is just the opposite in deceptively transparent and unpredictable, opaque words.

Another factor, type of words, considered as the second best predictor, has an impact of $31 \%$ of the variation in the vocabulary gain (Vidal; 2003). The performance of the learners in technical items was much better than academic or low-frequency words, and they achieved low-frequency words slightly better than academic lexical items.

The third primary element having an effect on vocabulary retention is the elaborations of the explanations in the lesson, revealing $24 \%$ of the variation in the vocabulary gain (Vidal, 2003). In the study, results show that words which received elaboration were found to bring greater gains than the other words receiving no elaboration. In other words, the more explicit elaboration the target word goes with, the bigger the gain becomes.

Vidal (2003) found the frequency of occurrence has the least contribution to vocabulary gain (only $11 \%$ of the variation in the vocabulary gain). However, the frequency of occurrence of those words in a context is found to be a significant factor affecting vocabulary gains because words to be learned need to be exposed to more than once in a context (Elley, 1989). Turning to Biemiller (2005), one finds that new words need to be seen in texts from 6 to 12 times or more for abstract words by middle grader learners so as to
make those words used knowledgeably. Generally, seven repetitions seem to be enough for most people to be able to memorize a word; however, when learners do not learn words consciously, or they are not told they would be tested, an average number of sixteen encounters is required for a word to be learned (Nation, 1982; cited in McCarthy, 1990).

## CHAPTER 3

## METHODOLOGY

As it has been stated, the study aims to find out the effects of receptive and/or productive tasks on vocabulary retention of the students studying at the School of Foreign Languages at Anadolu University, Turkey. For this purpose, a quasi-experimental pre-post test design was carried out with randomly assigned treatment and control groups. Two sets of target words were included in the study for the same purpose in the line of the same procedures for the verification of the results. The handling of the first set of 8 words was called "word set I"; and the second set of 8 words was called "word set II". In this chapter, the subjects, instruments, data collection and data analysis are explained.

### 3.1. Subjects

The study was conducted at the School of Foreign Languages at Anadolu University in the fall term of academic year 2008-2009. The participants were lower-intermediate level preparatory class students. The level of the students was determined by Michigan Placement Test applied at the beginning of the term. 127 students were present in the application of word set I, and 117 students were present in the application of word set II. The students were in four intact groups which were assigned randomly to a control group and 3 experimental groups: receptive task group, productive task group, and mixed task group.

All the groups received explicit vocabulary teaching. After the teaching part, receptive task group received receptive tasks, productive task group received productive tasks, mixed task group receive both receptive and productive tasks, and control group did not receive any of them. The treatment in all groups was carried out by the researcher. Table 3.1. describes the numerical distribution of the students.

| Tasks Groups receive | Word set 1 | Word set II |
| :--- | :---: | :---: |
| neceptive Task Group | $\mathbf{n}$ | 30 |
| Productive Task Group | 32 | 33 |
| Mixed Task Group | 33 | 32 |
| Control Group | 33 | 22 |
| Total | 29 | 117 |

Table 3.1. Distribution of the Students in Each Group

All the participants are native speakers of Turkish. They don't have English speaking parents, nor have they lived outside Turkey. Because English is a foreign language in Turkey, most of the input is received through formal instruction.

The students attend 28 hours of English classes each week for a year, and they have grammar (8 hours), reading (6 hours), writing (6 hours), and speaking/ listening (8 hours) classes. The aim of the program is to make students be able to understand and use the language competently.

### 3.2. Target Words

The study aimed to focus on 16 target words altogether in two sets of 8 words in each as learners can achieve 8-9 words per lesson (Nation, 1982; cited in McCarthy, 1990; Laufer, 1998).

In order to decide on 16 words to use for this study, a larger corpus of words from 3000 to 10.000 frequency band depending on the British National Corpus (2003; http://www.wordcount.org/main.php) was investigated and at first sight 86 words were chosen randomly. The words under 3000 band were eliminated because the most frequent 2000 words in English represents the lexical items required for basic everyday oral communication and these words account for at least $80-85 \%$ of the words on any page (Schmidt et al., 1956; cited in Schmitt et al., 2001; Nation \& Newton, 1997; Nation, 2001). Apart from the first 2,000 words, the next 1,000 words below the 3,000 words level points to the threshold allowing learners to read authentic texts (Schmidt et al., 1956; cited in Schmitt et al., 2001). Therefore, to decrease the possibility for the learners to encounter the target words in other course books or the materials they see, those more frequent than first 3,000 words were not included in the study. In addition, because the knowledge of those less frequent than 10,000 words indicates the ability to cope with the challenges of university study in an L2 (Hazenberg and Hulstjin, 1996), and they cover only a small proportion of any text (Nation, 2001), the words beyond 10,000 were eliminated from the list.

A vocabulary test including the first chosen 86 words was given to the students to be sure to choose the ones they have not met or known. The test included the list of the words, and the students were asked to write L1
equivalents, L2 definitions, synonyms or draw a picture if they know the meaning of the word. They were asked to put a question mark for the ones they feel familiar, and put an X for the words they have never seen or heard. Then, checking the students' answers, 37 words that all of the students put an X were set aside. Afterwards, the ones that the students were going to meet in their textbook followed in the Reading course were discharged. Finally, 16 words were selected. The target words determined following the criteria above consisted of 8 nouns and 8 verbs because nouns and verbs are the most common parts of speech found in natural texts (Webb, 2005). In this way, 4 nouns and 4 verbs were focused on in each word set.

To make all the target words to be dealt with in the study equal because the aim of the current study is not to reveal a difference between the target words but the tasks students receive, words similar to the subjects' L1 was not included into the study because it is either straightforward to learn these words than the others or it is a source of interference since they could also be deceptively transparent. Another point is that special attention was paid not to include technical items as it positively affects students' performance. The third crucial factor, the amount of elaboration, was equalized to ensure all the target words receive same elaboration. Finally, the repetition of the target words was supported not only through instruction, but also by the help of passages, and different tasks.

### 3.3. Materials

The primary focus of this study was to compare the effects of receptive and/or productive tasks on vocabulary gains. In doing this, three types of tasks were designed: receptive tasks, productive tasks and mixed (perceptive+productive) tasks. In order to minimize the memorization, expressions and contexts used in presentations were altered in the tasks.

### 3.3.1. Receptive Tasks

Receptive tasks consisted of three different activities. The first one was a matching activity. The target words were matched with their definitions. The second receptive task was a multiple-choice task consisted of 17 sentences to be completed with the target words choosing one of the options below each sentence. The final part was designed as an odd one out task. Students were supposed to find the odd word. Four words in a series of denotations including the target word were comprised for each target word. The other three words in each series were chosen from the ones students had already learnt so that they could think through words' meanings and find the odd one. To be able to do this task, students were to analyze the meanings of the newly learnt words with respect to other words in the succession.

### 3.3.2. Productive Tasks

Productive tasks, just like receptive ones, consisted of three various activities. The first task was a 'finding the word' task. The students were given the L2 definitions and were supposed to provide the correct target word for each
definition. The second productive task was a fill in the blank task. Students were required to fill in the blanks in 17 sentences with the target words from memory. The third part of the productive tasks included reconstruction of the target words. In their usual reading classes, students were familiar with these kind of unscrambling words tasks. Students were given the target words scrambled randomly and asked to unscramble them and to form one sentence for each.

### 3.3.3. Mixed Tasks

Receptive and productive tasks together were designed as mixed tasks for the third group of students. The matching task of the receptive task group and reconstructing the words task of the productive task group were taken as they are. Half of the multiple-choice part of the receptive tasks and half of the fill in the blanks part of the productive tasks were taken to form the last group. This was done to give equal opportunity to the students.

### 3.2.3. Lesson Plans

The aim of the current study was to find out the effects of receptive and/or productive tasks on vocabulary retention. Therefore, different from other studies carried out to answer the same question by giving reading texts or sentences with marginal glosses, words with pictures, or L1 or L2 counterparts to help students notice the new words and their meaning, in this study participants were first presented the target words following the steps of
vocabulary teaching to clarify the form and meaning, then they were given different tasks for further practice.

In this study, all the participants were presented the target words by the researcher herself. Explicit vocabulary instruction was preferred at this stage because it has positive effects on L2 words by helping learners use the words more accurately (Morimoto \& Loewen, 2007), and it is considered as the most effective way of establishing the link between form and meaning (Schmitt 2008).

Following Harmer (1991) and Thornbury (2002), the presentation of the target words included information about giving meaning (through examples, pictures, or definitions), spelling and pronunciation of the target word. An overhead projector was used while presenting the words. Students first saw the word, and then two examples were shown to the students one by one so that they could grasp the meaning. Just after seeing the examples, the definitions of the target words appeared on the board. Following that, some comprehension checking questions were asked for the clarifications of the target word meanings and to ensure students' readiness for the task stage. Finally, they spelled the word, and the researcher wrote it on the board, which was followed by pronunciation study. During the presentations students were not allowed to take notes, but the words, examples and their meanings, just like how they saw on transparencies, were copied for them as handouts and were given out after students took immediate post-tests at the end of the lesson (see Appendix 1\&2 for the lesson plans).

After the steps described above, the presentation stage continued by reading of two texts written by the researcher to help the students see the target words in a larger context and thus get a further contextual input to understand the target words (Gass, 1988; cited in Paribakht \& Wesche, 1997). This contextual auxiliary task was preferred in this study because the students were familiar with such a procedure in their usual reading classes. Besides, instruction plus contextualized reading was found to bring superior retention (Paribakht \& Weshe, 1997), and context helped the development of strategies (Prince, 1996), gave more information about the usage (Nagy, 1988; Harmer, 1991, 2003), and in this way multiple meaningful exposures to the target words were ensured through which definitional and contextual information was supplied (Stahl, 1999).

Before the students read the texts, some pre-reading questions were asked for background knowledge activation. After the students read the text, they were asked some comprehension questions or to put the events into the correct order as a during-reading activity. None of these questions required the production of the target words, but basic understanding of the text.

To determine the reading difficulty levels of the texts, the "FleschKincaid Grade Level Formula" (http://www.standardsschmandards.com/exhibits/rix/) was used. The Flesch-Kincaid Reading Ease score shows how easy a text is to read. The highest readability score is 121 , which illustrates that every sentence consists of only one-syllable word, and the lowest is 0 . To the formula, the higher the score, the easier it is to read. When calculated, the reading ease score of the text "Rage Against the Machine" used
with word set I revealed 63. Parallel to this, the second reading text, "Bernardo" with word set II, revealed an ease score of 62. To evaluate this result, "FleschKincaid Grade Level Formula" was applied to a recently studied reading text "A Trip to Thailand" in students' course books "Active 2", and results revealed that the reading score of this text was also 64 . This result indicates that the reading ease of the texts written by the researcher was similar to the ease of the text students read in their course books.

Apart from this, creating the texts, a great deal of attention was paid to choosing familiar topics to the students because the work of Pulido (2007) indicates that topic familiarity played an important role in the degree of difficulty in lexical inferencing. The first passage was about the surprising rise and fall in a man's life, and the second was about a man who lost his job because of a latest technological machine, a popular topic students dealt with in their speaking and reading courses.

Before the application of the texts to the research groups, texts were piloted in another group of lower-intermediate students at the same school $(\mathrm{n}=26)$ to determine the amount of time to be spent by them to comprehend it and to check whether they had difficulty in understanding or not. Piloting the texts revealed that 3 minutes for pre-reading, 8 minutes for reading and 4 minutes for post-reading were adequate, and texts were convenient for their proficiency level.

### 3.3. Instruments

To measure the effects of different tasks on vocabulary gains, each group was given the same test as pre-test, immediate post-test, and four-week delayed post-test on each word set. All the tests were same except for the order of the items so as to prevent the test gain effects.

Each test consisted of two parts: part A -designed as a multiple choicetest to determine the receptive gains- and part B-organized as fill in the blank test to evaluate productive gains-. In that sense, the tests were not different from the tasks applied in the classes, which means students got familiar with the question types during the treatments.

The multiple-choice test consisted of 15 sentences. This group included 4 sentences as distractors in which the correct choice was one of the already known words. Below each sentence, there were 4 choices one of which was the correct answer. If the correct answer was a noun, the other choices were also nouns; if the correct choice was a verb, the other choices were also verbs (Webb, 2005). Among the choices for each sentence, 2 words were from the target words. The other choice was one of the words they had already learnt in their course books. The last choice was a noun or verb which was highly low frequent and considered impossible for the students to know.
E.g. 1) When I $\qquad$ at the speed indicator of the car on the highway, I was shocked as it showed $210 \mathrm{~km} / \mathrm{h}$.
a) detained
b) invaded
c) demolished
d) glanced

Another group of 15 sentences were produced for the productive part of the tests. Just like the receptive part of the test, 4 questions were distractor in each part.
E.g. 2) The thief had tried to $\qquad$ her purse when she was in Spain, but luckily she chased the thief away.

Apart from these, to see the total gain of the vocabulary learned, the students were given another test including 16 words altogether six weeks after the treatment. This total retention test consisted of again two parts: 30 sentences as the combination of the multiple choice tests designed for each word set, and 30 sentences as the combination of the fill in blank test developed for each word set.

The order of the target words in the tests was randomized to decrease the effects of episodic memory of the order of presentation of the target words (Pulido, 2003; Choi, 2007). In addition, in delayed post-test some pronouns were alternated ('she's were converted into as 'he's), and some proper nouns were shifted with others.

Before the application of the tests to the participants, the test was given to nine lecturers, one of whom was a native speaker of English, and they were asked to choose the best answers for the first part, and fill in the blanks with any possible words for the second part. Depending on the answers from the lecturers, 4 questions in the word set I test were rewritten and ambiguous and unclear instructions were changed.

To test the readability of the test and to set a time limit for the application of word sets, the test was also given to another lower-intermediate
group of students $(\mathrm{n}=26)$ at the same school, and they were asked to read the sentences and circle the words or phrases they did not understand. Because they did not know the target words, it was not possible for them to choose the correct answers or fill in the blanks with the target words. The only aim of piloting the tests was to make the test items more understandable for the students to participate in the study and to set a time limit for them. At the end, it was understood that the test items were clear for the students, and 10 minutes for each part of the test were enough for them.

That being the case, the participants were given 10 minutes to complete each part in pre and post tests. As for the total retention test, 20 minutes for each part was given to students to complete each part.

### 3.4. Data Gathering

The application of each word set started with the pre-test. 10 minutes were given to the students to complete each part of the pre-test. After 20 minutes spent for the pre-test altogether, the researcher went on with the presentation of the target words, which lasted approximately 30 minutes.

Then, the passages were distributed to students. Students read the text and dealt with the questions in 15 minutes.

After reading the texts, receptive task group received receptive tasks; productive task group handled productive tasks, mixed task group was given mixed (receptive+productive) tasks; and control group did not receive any tasks, instead students were tested to see their immediate vocabulary gains. In all groups which received tasks, 4 minutes were spent for the first task of each
group. For the second task of each group, the total time was 9 minutes to do the task and to check the answers. The time was divided into half for the mixed task group; 4-5 minutes for receptive part, 4-5 minutes for the productive part of the task. 12 minutes were assigned for the third task in each group. The total amount spent for the tasks was 25 minutes in each condition.

Each group was given immediate post-test right after the application of each word set and asked to complete the test in 20 minutes, 10-minute for each part. In the application of both word set I and II, the students who were not in the class in the first hour of the lesson, during pre-tests or presentations, were excluded from the study.

Four days after the first set of 8 target words was dealt with, the second set of 8 words was studied. The same procedure was followed for the second set of words.

Four weeks after the immediate post-tests, delayed post-tests on each set of 8 target words were conducted to all participants. Two weeks after this test, a total retention test was administrated to all groups to see the total gain of the vocabulary learned. The tests of the students who did not participate in any of the applications of word set I and II were not included to the analysis of the total vocabulary gains.

### 3.5. Data Analysis

In the analyses of the data, firstly the tests were graded, and then the data were analyzed with reference to each research question. With regard to the receptive parts of all tests, which were composed of 15 sentences, 11 of the
sentences which were on the target words were scored. The other 4 sentences written with the previously learnt words were eliminated as they were not related to the main focus of the study. The choices were scored as correct (1 point) or incorrect ( 0 point). In the case of having no answer or more than one answer chosen for one sentence were scored as incorrect ( 0 point). Therefore, the maximum score for the receptive parts of the tests was 11.

As for the productive parts of the tests, again 11 of the 15 sentences were graded. Because the productive tests required production of the words, spelling was important. In scoring the answers, 1 point was given for the correct use of the target words. Spelling mistakes resulting from one letter interference were accepted as correct and scored 1 point. However, if students wrote the target word with more than one spelling mistake, the answer was considered as incorrect (0 point). For example, inovation, and disguese were considered correct, but innovention or disguce were assumed to be incorrect because there were more than one letter to be mistaken and scored as incorrect ( 0 point). Just like the receptive part, maximum score for the productive part of the tests was 11.

In regard to the total retention test, because there were 30 questions in each part of the tests 8 of them being the distractors, 22 of the questions were graded, and the maximum score was 22 . Scoring was completed for each part just as described above.

After scoring was completed, how the data were analyzed is discussed below with reference to each research question.

1. Do groups receiving receptive, productive, and mixed tasks respectively and the control group differ within themselves in terms of receptive and productive vocabulary gains of the students?

For each task group, one way ANOVA for repeated measures was administered to identify the differences.
2. Are there any significant differences in the students' receptive vocabulary gains among the groups from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post test?

Two way ANOVA for mixed measures was used to examine students' receptive vocabulary gains among the groups.
3. Are there any significant differences in the students' productive vocabulary gains among the groups from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post test?

Two way ANOVA for mixed measures was used to investigate students' productive vocabulary gains among the groups.
4. Do the groups differ in receptive and productive vocabulary gains when a total retention test is applied six weeks after dealing with the word sets?

One way ANOVA was used to compare the groups' total vocabulary gains.

## CHAPTER 4

## RESULTS AND DISCUSSION

This study aims to find out the effects of receptive and/or productive tasks on vocabulary gains. In doing this, it compares four groups: receptive task group receiving receptive tasks only, productive task group receiving productive tasks only, mixed task group receiving both receptive and productive tasks, and control group receiving no tasks. The study includes two sets of words with different vocabulary groups for the same purpose to verify the results.

This study followed a mixed design repeated measures. 4 (groups receiving different tasks: receptive, productive, mixed, and control) x 3 (tests applied at three different intervals: pre, immediate, delayed) x 2 (parts of tests: receptive, productive).

The data were analyzed in three steps:

1. All groups, within themselves, were investigated to learn their gains from the tasks they received by using one way ANOVA for repeated measures. Students' test scores from pre-test to immediate post-test, from immediate post-test to delayed post-test, from pre-test to delayed post-test were compared.
2. Two way ANOVA for mixed measures were conducted to examine students' receptive and productive vocabulary gains between groups from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post test.
3. One way ANOVA was administered to find out which group of students receiving different tasks gained more vocabulary when a total retention test is applied.

As the first step, the pre test results of four groups were compared with each other to find out if there were any differences among them at the beginning of the study. Table 4.1. presents the basic features of the data such as the mean scores and standard deviations of all groups and ANOVA results in pre-test.

Table 4.1. Between-Group Differences in Pre-test

|  | Groups | Part of Tests | Pre-test |  | F |  | p |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mean | Sd | Receptive | Productive | Receptive | Productive |
| $\begin{array}{\|c} \text { Word } \\ \text { Set } \\ \text { I } \end{array}$ | Receptive$(\mathrm{N}=32)$ | Receptive | 0,56 | 0,72 | 0,052 | 0,948 | 0,984 | 0,420 |
|  |  | Productive | 0,00 | 0,00 |  |  |  |  |
|  | Productive$(\mathrm{N}=33)$ | Receptive | 0,61 | 0,61 |  |  |  |  |
|  |  | Productive | 0,00 | 0,00 |  |  |  |  |
|  | $\begin{gathered} \text { Mixed } \\ (\mathbf{N}=\mathbf{3 3}) \end{gathered}$ | Receptive | 0,55 | 0,62 |  |  |  |  |
|  |  | Productive | 0,03 | 0,17 |  |  |  |  |
|  | $\begin{gathered} \text { Control } \\ (\mathbf{N}=\mathbf{2 9}) \end{gathered}$ | Receptive | 0,55 | 0,78 |  |  |  |  |
|  |  | Productive | 0,00 | 0,00 |  |  |  |  |
| Word Set II | Receptive$(\mathbf{N}=\mathbf{2 9})$ | Receptive | 0,55 | 0,69 | 0,664 | -- | 0,576 | -- |
|  |  | Productive | 0,00 | 0,00 |  |  |  |  |
|  | Productive$(\mathbf{N}=33)$ | Receptive | 0,45 | 0,79 |  |  |  |  |
|  |  | Productive | 0,00 | 0,00 |  |  |  |  |
|  | $\begin{gathered} \text { Mixed } \\ (\mathrm{N}=32) \end{gathered}$ | Receptive | 0,40 | 0,56 |  |  |  |  |
|  |  | Productive | 0,00 | 0,00 |  |  |  |  |
|  | $\begin{gathered} \text { Control } \\ (\mathbf{N}=\mathbf{2 3}) \end{gathered}$ | Receptive | 0,65 | 0,71 |  |  |  |  |
|  |  | Productive | 0,00 | 0,00 |  |  |  |  |

Max. Score: 11
$p^{*}<0,05$

As the table 4.1. indicates, the mean scores in the receptive part of the pre-test for the receptive task, productive task, mixed task, and control groups were respectively $0.56,0.61,0.55,0.55$, and in the productive part 0.00 for all groups except the mixed task group whose mean score was 0.03 for the word set I. As for the second word set, the mean scores of the groups in the same order were $0.55,0.45,0.40,0.65$ in the receptive; 0.00 for all groups in the productive part of the test.

In order to investigate whether there was a statistical difference among them, one way ANOVA was conducted on the groups' pre-test scores in receptive and productive parts for each word set. The results revealed the groups (receptive task, productive task, mixed task, and control) were not different from each other for both the first and second group of words at the beginning of the treatment [receptive part $=\left(\mathrm{F}_{(3-123)}=0.052, \mathrm{p}=0,948\right)_{\text {word set } \mathrm{i}} ;\left(\mathrm{F}_{(3-113)}=0.664\right.$, $\left.\mathrm{p}=0,576)_{\text {word set .II }}\right] ;$ [productive part $=\left(\mathrm{F}_{(3-123)}=0.948, \mathrm{p}=420\right)_{\text {word see } . ~}$; $(\mathrm{F}$ could not be tested) word set. II].

In summary, there were not any pre-existing differences among the groups either in receptive or productive parts of the pre-test, and they were not different from each other before the application of the teaching of the word sets.

### 4.1. Within Group Differences in terms of Vocabulary Gains

In this part, receptive and productive vocabulary gains of the students in each group were scrutinized within themselves to see what differences came out

Table 4.2. Mean Scores and Standard Deviations of the Groups, One way ANOVA Results and Pairwise Comparisons

|  | Groups | Part of Tests | Pre-test |  | Immediate Post-test |  | Delayed Posttest |  | ANOVA for Repeated Measures |  | Pairwise Comparisons |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Pretest Immediate Posttest | PretestDelayed Posttest |  |  | Immediate Posttest Delayed Posttest |
|  |  |  | Mean | Sd |  |  | Mean | Sd |  |  | Mean | Sd | F | p | p | p | p |
| $\begin{gathered} \text { WORD } \\ \text { SET } \\ \text { I } \end{gathered}$ | Receptive | Receptive | 0,56 | 0,72 | 9,78 | 1,34 | 9,31 | 2,16 | 349,295 | 0,000* | 0,000* | 0,000* | 0,995 |
|  | ( $\mathrm{N}=32$ ) | Productive | 0 | 0 | 7,13 | 1,83 | 6,63 | 3,2 | 126,383 | 0,000* | 0,000* | 0,000* | 0,995 |
|  | Productive | Receptive | 0,61 | 0,61 | 8,94 | 1,5 | 8,91 | 2,14 | 338,878 | 0,000* | 0,000* | 0,000* | 0,936 |
|  | ( $\mathrm{N}=33$ ) | Productive | 0 | 0 | 8,58 | 1,3 | 6,88 | 1,95 | 395,224 | 0,000* | 0,000* | 0,000* | 0,000* |
|  | Mixed | Receptive | 0,55 | 0,62 | 9,73 | 1,26 | 9,06 | 1,69 | 668,407 | 0,000* | 0,000* | 0,000* | 0,112 |
|  | ( $\mathrm{N}=33$ ) | Productive | 0,03 | 0,17 | 8,3 | 1,55 | 7,61 | 2,37 | 275,798 | 0,000* | 0,000* | 0,000* | 0,443 |
|  | Control | Receptive | 0,55 | 0,78 | 7,93 | 2,52 | 5,41 | 3,04 | 79,765 | 0,000* | 0,000* | 0,000* | 0,002* |
|  | ( $\mathrm{N}=29$ ) | Productive | 0 | 0 | 4,55 | 1,96 | 3,03 | 3,53 | 30,311 | 0,000* | 0,000* | 0,000* | 0,040* |
| $\begin{array}{\|c} \hline \text { WORD } \\ \text { SET } \\ \text { II } \end{array}$ | Receptive | Receptive | 0,55 | 0,69 | 10,06 | 1,07 | 9,28 | 2,19 | 447,595 | 0,000* | 0,000* | 0,000* | 0,164 |
|  | ( $\mathrm{N}=29$ ) | Productive | 0 | 0 | 6,62 | 2,65 | 6,45 | 2,50 | 116,788 | 0,000* | 0,000* | 0,000* | 0,995 |
|  | Productive | Receptive | 0,45 | 0,79 | 9,36 | 0,9 | 8,48 | 2,36 | 344,655 | 0,000* | 0,000* | 0,000* | 0,095 |
|  | ( $\mathrm{N}=33$ ) | Productive | 0 | 0 | 8,33 | 1,93 | 6,46 | 2,32 | 198,891 | 0,000* | 0,000* | 0,000* | 0,005* |
|  | Mixed | Receptive | 0,4 | 0,56 | 9,53 | 1,44 | 9,31 | 1,75 | 635,912 | 0,000* | 0,000* | 0,000* | 0,995 |
|  | ( $\mathrm{N}=32$ ) | Productive | 0 | 0 | 8,16 | 1,9 | 6,97 | 1,96 | 310,661 | 0,000* | 0,000* | 0,000* | 0,011* |
|  | Control | Receptive | 0,65 | 0,71 | 8,61 | 2,23 | 6,17 | 3,34 | 109,445 | 0,000* | 0,000* | 0,000* | 0,001* |
|  | ( $\mathrm{N}=23$ ) | Productive | 0 | 0 | 5,22 | 2,28 | 3,09 | 3,29 | 34,541 | 0,000* | 0,000* | 0,000* | 0,008* |

in each group from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post test. In order to find out whether there was a significant difference in general among the test intervals applied to each group, one way ANOVA for repeated measures was used. Following that, pairwise comparisons were administered to determine between which test intervals this difference stemmed from. Tables 4.2. illustrates the results of one way ANOVA for repeated measures and pairwise comparisons on the differences of receptive and productive parts' scores on the tests applied to all groups at three different intervals for each word set. The results will be analyzed considering the research questions.

### 4.1.1. Vocabulary Gains within the Receptive Task Group

In order to answer whether there were any significant differences in the students' receptive and productive vocabulary gains within 'the receptive task group' from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post-test, the group's scores in the tests were investigated.

As seen in Table 4.2., the group's mean scores in the receptive parts of pre test, immediate and delayed post tests were respectively $0.56,9.78,9.31$ in the application of first word set; and $0.55,10.06,9.28$ in the application of second word set. The results revealed that the group increased its scores after the treatments. Receptive test score differences of the receptive task group was found to be significant for both word sets (Table 4.2) $\left[\left(\mathrm{F}_{(2 \cdot 62}=349,295\right.\right.$ $\left.\left.\mathrm{p}=0,000^{*}\right)_{\text {word set }} \mathrm{I},\left(\mathrm{F}_{(2-58)}=447,595 ; \mathrm{p}=0,000^{*}\right)_{\text {word set II }}\right]$, which means the scores of
the receptive task group changed significantly depending on the tests applied at different intervals. As seen in Table 4.2., when the receptive part scores of the receptive task group were compared, their post test scores (both immediate and delayed) were significantly different and better than their pre-test scores $\left(\mathrm{p}=0.000^{*}\right)$ for both word sets. Although the group's mean scores decreased slightly in the delayed post-tests for both word groups, no significant differences between immediate and delayed post-tests were revealed ( $\mathrm{p}=0,995$ ) word set and ( $\mathrm{p}=0,164)_{\text {word set II. }}$

The same analyses were performed on the productive parts of the tests to explore whether there were differences in the scores of receptive task group's productive tests obtained at different intervals for each word set. As illustrated in Table 4.2., students' mean scores in the productive part in the same order were $0.00,7.13,6.63$ for the first, and $0.00,6.62,6.45$ for the second word sets. The mean scores of the group revealed to have increased after the treatments. As summarized in Table 4.2., the results of the receptive task group in productive tests applied at different intervals (as pre-test, immediate and delayed post tests) for both word sets indicate a significant difference $\left[\left(\mathrm{F}_{2}\right.\right.$. $\left.{ }_{62}=126,383 \mathrm{p}=0,000^{*}\right)_{\text {word set } I,}\left(\mathrm{~F}_{(2-58)}=116,788 \mathrm{p}=0,000^{*}\right)_{\text {word set II }}$. In other words, the scores of the receptive task group differed significantly according to the tests applied at different intervals. Similar to the results gained in the receptive parts of the tests, the immediate and delayed post-test scores of the receptive task group were significantly different and better than their pre-test scores for both word sets $(\mathrm{p}=0,000)$. There is also a slight decline from the immediate
post-tests to the delayed post-test, but the differences were not statistically significant in either word sets ( $\mathrm{p}=0,995$ ).

### 4.1.2. Vocabulary Gains within the Productive Task Group

To securitize whether there were any significant differences in the students' receptive and productive vocabulary gains within 'the productive task group' from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post-test, the group's scores were investigated.

As seen in Table 4.2., the productive task group's mean scores in the receptive parts of the pre test, immediate and delayed post tests were $0.61,8.94$, 8.91 in the first, and $0.45,9.36,8.48$ in the second word sets. It can be said that the scores of the productive task group increased after the treatments. The results for the productive task group in the receptive parts of the tests with both word sets revealed a significant difference in the tests conducted at three different intervals $\left[\left(\mathrm{F}_{(2 \cdot 64}=338,878 \mathrm{p}=0,000^{*}\right)_{\text {word see } \mathrm{I}}\right.$, $\left(\mathrm{F}_{(2-64)}=344,655 \mathrm{p}=0,000^{*}\right)$ word set II. That is, the scores of the productive task group varied with regard to the intervals of the tests. As illustrated in Table 4.2., the comparison of the receptive test scores for the productive task group revealed that their immediate and delayed post-test scores were significantly different and better than their pre-test scores for both word sets ( $\mathrm{p}=0.000$ ). Despite the slight decrease in the group's mean scores in the delayed post-tests, the difference between immediate and delayed post-tests was not significant both for the first ( $\mathrm{p}=0.936$ ) and second ( $p=0,095$ ) word sets.

The same analyses were conducted on the productive parts of the tests for both word sets to explore whether productive test scores of the productive task group were statistically different or not. As seen in Table 4.2., the group's mean scores on the productive tests were respectively $0.00,8.58,6.88$ for the first, and $0.00,8.33,6.46$ for the second word sets. The results revealed the tests conducted at different intervals for both word sets created a difference in the scores of the productive parts of the tests $\left[\left(\mathrm{F}_{(2-66)}=395,224 \mathrm{p}=0,000^{*}\right)_{\text {word set }}\right.$, $\left(\mathrm{F}_{(2-}\right.$ $\left.{ }_{64}{ }^{4}=198,891 \mathrm{p}=0,000^{*}\right)_{\text {word se I II }}$. As summarized in Table 4.2., for both word sets, the comparison of the scores for the productive task group in the productive parts of the tests disclosed that their immediate and delayed post-test scores were significantly different and better than their pre-test scores $\left(\mathrm{p}=0.000^{*}\right)$. However, a significant decrease in the productive task group's scores from immediate to delayed post tests was observed, and this revealed a significant amount of forgetting for the productive task group over time $\left[\left(\mathrm{p}=0,000^{*}\right)_{\text {word set }}\right.$; $\left(\mathrm{p}=0,005^{*}\right)_{\text {word set II] }}$.

### 4.1.3. Vocabulary Gains within the Mixed Task Group

To be able to understand whether there were any significant differences in the students' receptive and productive vocabulary gains within 'the mixed task group' from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post-test, the group's scores were investigated.

As seen in Table 4.2., the groups' receptive part scores were $0.55,9.73$, 9.06 for the first, and $0.40,9.53,9.31$ for the second word sets. Just looking at the scores the mixed task group received in all tests, one can infer that the group
increased its scores after the treatments. When investigated to find out whether these differences in the scores of the mixed task group's receptive tests applied at different intervals for each word set were statistically significant or not, the results for the mixed task group in the receptive parts of the tests revealed a significant difference in the tests conducted at three different intervals for both word sets $\left[\left(\mathrm{F}_{(2-64)}=668,407 \mathrm{p}=0,000^{*}\right)_{\text {word set } \mathrm{t}},\left(\mathrm{F}_{(2-62)}=635,912 \mathrm{p}=0,000^{*}\right)_{\text {word set II }}\right]$. In other words, the scores of the mixed task group diverged according to the intervals of the tests. As seen in Table 4.2, when the scores of the mixed task group were inquired, their immediate and delayed post-test scores were identified to be significantly different and better than their pre-test scores for both word sets $\left(\mathrm{p}=0,000^{*}\right)$. Even though the group's mean scores in the delayed post-tests for both word sets decreased slightly, the difference between immediate and delayed post-tests was not significant $\left[(\mathrm{p}=0,112)_{\text {word }}\right.$ set i; $\left.(\mathrm{p}=0,995)_{\text {word set II }}\right]$.

To question whether the scores of the mixed task group's productive tests applied at different intervals were statistically different or not, the same analyses were conducted on the productive parts of the tests for both word sets. The group's productive part scores were $0.03,8.30,7.61$ for the first, and 0.00 , 8.16, 6.97 for the second word sets. The scores of the group highlighted an increase in the mean scores after the treatments. When the results of the group were investigated, the scores of the mixed task group changed significantly depending on the tests applied at different intervals $\left[\left(\mathrm{F}_{2 \text { 2-6 }}\right)=275,798\right.$ $\left.\mathrm{p}=0,000^{*}\right)_{\text {word set } I},\left(\mathrm{~F}_{(2 \cdot 62)}=310,661 \mathrm{p}=0,000^{*}\right)_{\text {word set III }}$. As presented in Table 4.2., a closer analysis of the results emphasized that the mixed task group's immediate
and delayed post-test scores were significantly different and better than their pre-test scores for both word sets $(\mathrm{p}=0.000)$. Though there was a decrease in the grades between the immediate and delayed post test scores with the word set I, the difference was not statistically significant $(p=0,443)$. However, this difference was significant according to the results for the second word set $(\mathrm{p}=0,011)$, which shows a significant decrease in the scores and a significant amount of forgetting for the group over time.

### 4.1.4. Vocabulary Gains within the Control Group

To investigate whether there were any significant differences in the students' receptive and productive vocabulary gains within 'the control group' from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post-test, the group's scores were studied.

As given in Table 4.2., the control group's mean scores in receptive part of the tests were respectively $0.55,7.93,5.41$ for the first, and $0.65,8.61,6.17$ for the second word sets. An increase in the receptive scores in the control group's mean scores after the treatments was obvious just like the task groups' even though the group did not deal with any tasks. For both word sets, the results identified a significant difference for the control group in the receptive parts of the tests administered at three different intervals $\left[\left(\mathrm{F}_{(2-56)}=79,765\right.\right.$ $\mathrm{p}=0,000 *)_{\text {word set } \mathrm{I}},\left(\mathrm{F}_{(2-42)}=109,445 \mathrm{p}=0,000^{*}\right)_{\text {word set II] }}$. For both word sets, the immediate and delayed post-test scores for the control group were identified to be significantly different and better than their pre-test scores ( $\mathrm{p}=0,000^{*}$ ). On the other hand, there was a statistically significant decrease in the delayed post-test
scores of the group when compared to their immediate post-test scores, which refers to a significant amount of forgetting in the receptive parts of the tests both for the first $\left(\mathrm{p}=0,002^{*}\right)$ and second $\left(\mathrm{p}=0,001^{*}\right)$ word sets.

In order to research whether the scores of the control group's productive tests applied at different intervals were statistically different or not, the same analyses were conducted on the productive parts of the tests for each word set. As given in Table 4.2., the group's mean scores were 0.00, 4.55, 3.03 for the first, and $0.00,5.22,3.09$ for the second word sets. Depending on the scores, it can be said that the control group increased its productive scores as other groups despite receiving no tasks. As seen in Table 4.2., the results indicated that the tests administered at different intervals brought a difference in the scores of the productive parts of the tests $\left[\left(\mathrm{F}_{(2-50}=30,311 \mathrm{p}=0,000^{*}\right)_{\text {word set }}\right.$, $\left(\mathrm{F}_{(2-42)}=34,5441\right.$ $\mathrm{p}=0,000 *)_{\text {word set II] }}$. This means the productive scores of the control group differed according to the intervals of the tests. When the productive parts of the tests were analyzed further, the group's immediate and delayed post-test scores were found to be significantly different and better than their pre-test scores $\left(\mathrm{p}=0.000^{*}\right)$. However, a significant decrease was observed from immediate post-test to delayed post-test in the control group both in the first ( $\mathrm{p}=0,040^{*}$ ) and second $\left(\mathrm{p}=0,008^{*}\right)$ word sets, which refers to a significant amount of forgetting over time in the productive parts of the test for the control group.

### 4.2. Between Group Differences in the Receptive Parts of the Tests

In this part, receptive vocabulary gains of the students in each group from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post-test were examined between groups. Two way ANOVA for mixed measures was conducted to find out whether there were significant differences in the scores of the groups from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post test. Then, to investigate among which groups these differences stemmed from, a Tukey HSD test was conducted. The results were presented for the first and second word sets respectively. Table 4.3. presents between-group comparisons in the receptive parts of the tests.

Table 4.3. Between-Group Comparisons in the Receptive Parts of the Tests

|  |  | Tukey HSD Test |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Groups | Receptive | Productive | Mixed | Control |
| $\begin{gathered} \text { WORD } \\ \text { SET } \\ \text { I } \end{gathered}$ | Receptive | - | $\begin{gathered} 0,4006 \\ (\mathrm{p}=0,398) \end{gathered}$ | $\begin{gathered} 0,1076 \\ (\mathrm{p}=0,975) \\ \hline \end{gathered}$ | $\begin{gathered} 1,9199^{*} \\ (\mathrm{p}=0,000) \end{gathered}$ |
|  | Productive | - | - | $\begin{gathered} -0,2929 \\ (\mathrm{p}=0,654) \\ \hline \end{gathered}$ | $\begin{gathered} 1,5193^{*} \\ (\mathrm{p}=0,000) \end{gathered}$ |
|  | Mixed | - | - | - | $\begin{gathered} 1,8123^{*} \\ (\mathrm{p}=0,000) \end{gathered}$ |
|  | Control | - | - | - | - |
|  |  | Receptive | Productive | Mixed | Control |
| $\begin{gathered} \text { WORD } \\ \text { SET } \\ \text { II } \end{gathered}$ | Receptive | - | $\begin{gathered} 0,5312 \\ (\mathrm{p}=0,254) \end{gathered}$ | $\begin{gathered} \hline 0,2155 \\ (\mathrm{p}=0,878) \end{gathered}$ | $\begin{gathered} 1,4873^{*} \\ (\mathrm{p}=0,000) \end{gathered}$ |
|  | Productive | - | - | $\begin{gathered} -0,3157 \\ (\mathrm{p}=0,671) \\ \hline \end{gathered}$ | $\begin{gathered} 0,9561^{*} \\ (\mathrm{p}=0,000) \end{gathered}$ |
|  | Mixed | - | - | - | $\begin{gathered} 1,2717 * \\ (\mathrm{p}=0,000) \end{gathered}$ |
|  | Control | - | - | - | - |

The investigation of the groups revealed that there was a significant difference between the scores of the groups stemming from the test applied at different intervals. In other words, as seen in Table 4.3, being in different task groups while receiving tests at different intervals had a significant effect on the scores of the students in the receptive parts of the tests [See Appendix 4- Tables 20\&21 $\left.\left(\mathrm{F}_{(6-246)}=9,846, \mathrm{p}=0,000 *\right)_{\text {word set } \mathrm{I} ;}\left(\mathrm{F}_{(6-226)}=7,016, \mathrm{p}=0,000^{*}\right)_{\text {word set II }}\right]$. It means that different tasks had different roles on the receptive part scores of the students.

As Table 4.3. indicates, there was a significant difference between task groups and the control group, yet there was no significant difference between different task groups. Therefore, it can be concluded that tasks were useful disregarding the type. That is, for receptive gains, none of the groups which received different tasks was superior one to another. That no significant difference between task groups was found could also be seen in Graph 4.1.

Graph: 4.1.: Mean Scores of the Groups Receiving Different Tasks in the Receptive Parts of the Tests for Word Set I and II


R: Receptive Task Group; P:Productive Task Group; M: Mixed Task Group; C: Control Group

### 4.3. Between-Group Differences in Productive Parts of the Tests

Productive vocabulary gains of the students in each group from pre-test to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post-test were examined between groups and explained in this part. Similarly, two way ANOVA for mixed measures was conducted to find out whether there were significant differences in the scores of the groups from pretest to immediate post-test, immediate post-test to delayed post-test and pre test to delayed post test. Then, to investigate among which groups these differences stemmed from, a Tukey HSD test was conducted. The results were presented for the first and second word sets respectively. Table 4.4. presents between-group comparisons in the productive parts of the tests.

Table 4.4. Between-Group Comparisons in the Productive Parts of the Tests

|  |  | Tukey HSD Test |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Groups | Receptive | Productive | Mixed | Control |
| $\begin{array}{\|c} \text { WORD } \\ \text { SET } \\ \text { I } \end{array}$ | Receptive | - | $\begin{gathered} -0,5682 \\ (\mathrm{p}=0,208) \\ \hline \end{gathered}$ | $\begin{gathered} -0,7298 \\ (\mathrm{p}=0,062) \\ \hline \end{gathered}$ | $\begin{array}{\|c} \hline 2,0546 * \\ (\mathrm{p}=0,000) \\ \hline \end{array}$ |
|  | Productive | - | - | $\begin{gathered} -0,1616 \\ (\mathrm{p}=0,943) \end{gathered}$ | $\begin{gathered} 2,6228^{*} \\ (\mathrm{p}=0,000) \end{gathered}$ |
|  | Mixed | - | - | - | $\begin{array}{r} 2,7844^{*} \\ (\mathrm{p}=0,000) \\ \hline \end{array}$ |
|  | Control | - | - | - | - |
|  |  | Receptive | Productive | Mixed | Control |
| $\begin{array}{\|c} \text { WORD } \\ \text { SET } \\ \text { II } \end{array}$ | Receptive | - | $\begin{gathered} -0,0418 \\ (\mathrm{p}=0,995) \end{gathered}$ | $\begin{gathered} -0,4698 \\ (\mathrm{p}=0,826) \end{gathered}$ | $\begin{array}{r} 3,0755^{*} \\ (\mathrm{p}=0,000) \end{array}$ |
|  | Productive | - | - | $\begin{gathered} -0,4280 \\ (\mathrm{p}=0,850) \end{gathered}$ | $\begin{array}{r} 3,1173^{*} \\ (\mathrm{p}=0,000) \end{array}$ |
|  | Mixed | - | - | - | $\begin{array}{r} 3,5453^{*} \\ (\mathrm{p}=0,000) \end{array}$ |
|  | Control | - | - | - | - |

p* $<0,05$

As seen in Table 4.4, the results revealed that there was a significant difference between the pre test, immediate, delayed post tests and the scores of the groups. In other words, being in different task groups and repeated measures as pre, immediate and delayed post tests had a significant effect on the scores of the students in the productive parts of the tests [See Appendix 4- Tables 22\&23 $\left.\left(\mathrm{F}_{(6-246)}=12.031, \mathrm{p}=0,000^{*}\right)_{\text {word set } \mathrm{I}} ;\left(\mathrm{F}_{(6-226)}=8,159, \mathrm{p}=0,000^{*}\right)_{\text {word set II }}\right]$. It means that different tasks had different roles on the productive test scores of the students.

As it is seen in Table 4.4., task groups - receptive, productive or mixedwere significantly better than the control group ( $\mathrm{p}=0,000^{*}$ ). On the other hand, it was seen that receiving receptive, productive or mixed tasks did not lead to a significant gain difference. Graph 4.2. also shows the groups' scores which were not statistically different from each other.

Graph: 4.2.: Mean Scores of the Groups Receiving Different Tasks in the Productive Parts of the Tests for Word Set I and II


R: Receptive Task Group; P:Productive Task Group; M: Mixed Task Group; C: Control Group

### 4.4. Between-Group Differences in the Total Retention Test

In this part, the scores of the four groups were investigated to see whether they differed in their receptive and productive vocabulary gains when a total retention test wass applied 6 weeks after the applications of the two words sets. The groups' mean scores and standard deviations on the total retention test consisting of 16 target words together were given in Table 4.5.

Table 4.5. Descriptive Statistics for the Total Retention Test

|  | Part of Tests | Mean | Sd |
| :---: | :---: | :---: | :---: |
| Receptive <br> (N=30) | Receptive | 18,74 | 3,52 |
|  | 15,50 | 4,33 |  |
| Productive <br> (N=33) | Receptive | 18,48 | 2,77 |
|  | Productive | 16,61 | 2,62 |
|  | Productive | 16,19 | 2,97 |
| Control <br> $(\mathbf{N}=21)$ | Receptive | 13,00 | 5,45 |
|  | Productive | 4,81 | 4,72 |

Max. score: 22

As Table 4.5. summarizes, the mean scores of the receptive task, productive task, mixed task groups and the control group were respectively $18.74,18.48,19.97$, and 13.00 for the receptive part of the tests, and 15.50 , $16.61,16.19$, and 4.81 for the productive part of the test. To examine the differences on the receptive part of the test, one way ANOVA was administered. As the Table 4.6. indicates, there is a significant difference among
the groups in the receptive part of the total retention test scores $\left(\mathrm{F}_{(3-12)}=18,030\right.$ $\mathrm{p}=0,000^{*}$ ) (See Appendix 4- Table 24). To determine the source of the difference, a Tukey HSD test was conducted.

Table 4.6. Between-group Comparisons for the Receptive Part of the Total Retention Test

|  | Tukey HSD Test |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Groups | Receptive | Productive | Mixed | Control |
| Receptive | - | 0,2485 <br> $(\mathrm{p}=0,992)$ | $-1,2354$ <br> $(\mathrm{p}=0,0515)$ | $5,7373^{*}$ <br> $(\mathrm{p}=0,000)$ |
| Productive | - | - | $-1,4839$ <br> $(\mathrm{p}=0,331)$ | $5,4848^{*}$ <br> $(\mathrm{p}=0,000)$ |
| Mixed | - | - | - | $6,9688^{*}$ <br> $(\mathrm{p}=0,000)$ |
| Control | - | - | - | - |
| p*<0,05 |  |  |  |  |

As seen in Table 4.6., receptive, productive and mixed task groups were significantly different from control group $\left(\mathrm{p}=0,000^{*}\right)$. Although the mixed task group received better scores than the receptive and productive task groups, these differences were not statistically significant $\left[(p=0,0515)_{\text {for rec. }}(\mathrm{p}=0,331)_{\text {for pro. }}\right]$. When the receptive task group was compared to productive task group, the difference was extremely slight; in other words, these two groups were almost equal in the receptive part of the total retention test $(\mathrm{p}=0,992)$.

To inquire into the results in the productive part of the total retention test, one way ANOVA was conducted. The results in Table 4.7. demonstrate that there was a significant difference among the groups in the productive part
of the total retention test which stemmed from the control group $\left(\mathrm{F}_{(3-12)}=55,892\right.$ $\mathrm{p}=0,000^{*}$ ) (See Appendix 4- Table 25). There was a significant difference between the task groups and the control group according to the Tukey HSD Test results.

Table 4.7. Between-group Comparisons for the Productive Part of the Total Retention test

|  | Tukey HSD Test |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Groups | Receptive | Productive | Mixed | Control |
| Receptive | - | $-1,1061$ <br> $(\mathrm{p}=0,625)$ | $-0,6875$ <br> $(\mathrm{p}=0,879)$ | $10,6905^{*}$ <br> $(\mathrm{p}=0,000)$ |
| Productive | - | - | 0,4186 <br> $(\mathrm{p}=0,967)$ | $11,7965^{*}$ <br> $(\mathrm{p}=0,000)$ |
| Mixed | - | - | - | $11,3780^{*}$ <br> $(\mathrm{p}=0,000)$ |
| Control | - | - | - | - |
| $\mathbf{p * < 0 , 0 5}$ |  |  |  |  |

What Table 4.7 provides is that there was no significant difference between the task groups. Even though productive task group preformed better than receptive task group, this difference was not significant ( $\mathrm{p}=0,625$ ). Similarly, the difference between mixed and receptive task groups was not significant $(\mathrm{p}=0,879)$. The groups which received productive tasks (productive task group and mixed task group) were almost same in the productive part of the total retention test $(\mathrm{p}=0,967)$.

### 4.5. Discussion

This study investigated whether receptive and/or productive tasks contribute to receptive and productive gains differently or not. In doing this, the groups receiving receptive, productive mixed and no tasks were investigated among themselves.

The results revealed a significant difference between the task groups and control group both in receptive and productive tests. The results indicated no significant difference among the tasks groups, which means receiving only receptive, only productive and both receptive and productive tasks made no significant difference in the receptive and productive vocabulary gains of the students.

Similarly, Waring's (1997) study revealed no significant difference in receptive and productive tests between the groups which received receptive or productive tasks from immediate to delayed post tests. The similarity between the results of the Waring and the present study could be due to the application before the tests. In Waring's study, unlimited time was given to the students to learn the target words and in the current one students were taught the target words explicitly and then handled the tasks as practice.

On the contrary, the results of some studies support one or the other type of tasks. For example, in their study, Hulstjin and Laufer (2001) gave receptive task group a text and a set of ten multiple choice comprehension questions. Target words were glossed in L1 in the margins of the text. The second group receiving reading plus fill-in task received the same text and same questions, but the target words were deleted from the text. They were asked to fill in the
blanks with 15 words 5 of which were distractors with their L1 translations. The third group, composition writing task group, was given target words with explanations and examples of usages and was asked to write a composition with the target words. The results showed that productive tasks were better for receptive vocabulary gains. Mondria \& Wiersma (2004) argued that receptive tasks were good for receptive vocabulary gains, and productive tasks were good for productive vocabulary gains. They found it by giving learners L2 to L1 translations as receptive, L1 to L2 translations as productive tasks. Then, students were tested again on translation tests. Similarly, Choi (2007) revealed that receptive tasks were better both in receptive and productive gains than productive tasks. To do so, Choi gave reading in glossed sentences as receptive tasks, and sentence writing as productive tasks. At the end, students were tested on translation tests. Barcroft (2004; 2006) indicated receptive tasks were better for receptive gains. Barcroft gave words with pictures as receptive (2004; 2006), and sentence writing (2004), word writing (2006) as productive tasks, and tested students on a receptive test, recall from pictures.

What is common in these studies investigated is the fact that none of them included explicit teaching of the target words. They gave tasks to students and let them study the target words on their own, and then they tested the students. Apart from the differences in the teaching part, the difference between the current study and the others lies in the differences in the tasks. While most of the studies mentioned above used L2 and L1 equivalents of the words for receptive and L1 to L2 equivalents of the words as productive tasks, translation methods were not preferred in this study because these types of tasks requiring
shallower processing were found to yield less retrieval (Sagarra \& Alba, 2006). Instead, the target words were presented in sentences following the steps of vocabulary teaching (Harmer, 1991, 2003) due to the positive effects of explicit instruction on learners' vocabulary development (Morimoto \& Loewen, 2007). Then a reading text was prepared to use the target words in context. Following that, receptive and/or productive tasks were created in a way that students could see each word in a sentence context. Rather than just using words with translations or pictures, contextual presentation and practice were preferred in this study. Therefore, as stated in the literature, it may have helped the development of strategies (Prince, 1996), gave more information about the usage of the word (Nagy, 1988; Harmer, 1991, 2003), and in this way multiple meaningful exposures to the target words were ensured through which definitional and contextual information was supplied (Stahl, 1999). Because all groups received explicit teaching and saw the target words in context, tasks may have had less effect on vocabulary retention when compared to the other studies investigated on the effects of receptive and productive tasks. That being so, no significant difference was found task groups.

Furthermore, the total retention test results in which participants' vocabulary gains for a total of 16 words was applied six weeks after the applications supported that the task difference was not significant.

As stated above, task types did not make a difference in this study probably because the students were exposed to the target words in many different contexts: during presentation, reading text, and tasks, which is crucial for a word to be retained as encountering a word again and again refreshes the
memory and integrates the information in the interlanguage system together with conscious attention (Ellis, 1997). Moreover, the tasks were also contextual. A different sentence context was created for each use of the target words. In that sense, because the number of encounters was enough for the students to retain the target words, different tasks (receptive and/or productive) might not have had different effects on vocabulary retention. The scores the control group received proved that tasks contribute to receptive and productive gains significantly. No matter which task type was preferred after explicit vocabulary instruction, it contributed to receptive and productive gains significantly.

However, when the task groups were investigated within themselves for their productive gains, the receptive task group was the only group which was able to retain its productive vocabulary knowledge in four weeks. While the gains of the other task groups receiving productive and mixed tasks faded significantly in time, receptive task group was able to yield significantly superior retention.

The reason behind that could be the group might have been able to focus on the features related to the target word's form to a greater extent because their attention was not divided into conceptualizing, producing, and monitoring production (Choi, 2007) as it would have been for the productive and mixed task groups. In other words, while only processing and evaluating input could be enough to complete the receptive tasks, greater amount of different types of processing, which included both semantic and structural elaboration as well as meta-cognitive strategies such as planning and monitoring could be necessary for the completion of the productive tasks (Choi, 2007). In this way, the receptive task group might have consumed less attentional resources than the groups receiving
productive tasks, and they may have invested more mental effort to the formal prosperities of the target words.

The negative role of forced output at the initial stage of learning can be a reason why the task groups receiving productive tasks (productive and mixed task groups) decreased their productive gains significantly in delayed post tests. As Barcroft (2004; 2006) suggests, forcing output during the initial stages of learning could exhaust learners' processing resources, resulting in decreased rates of learning. According to Barcroft (2004), when new L2 words are presented to learners, they must allocate processing resources to complete dual tasks: encoding new L2 word forms as well as encoding form-meaning mapping. The mental effort required for the simultaneous completion of these two processing operations during forced output tasks can exhaust learners' processing resources, resulting in decreased rates of learning. In the current study, receptive task group was spending time and effort only for recognition while productive and mixed task groups were trying to produce target words in mind to complete the tasks, which might cause the groups receiving productive tasks learn in decreased rates compared to the receptive task group.

Another point could be that the students have difficulty in attending to both form and content at the same time while completing the tasks requiring production. For example, the third task of the productive and mixed task groups was to form a sentence. In that sense, writing a sentence requires syntactic, semantic, lexical and pragmatic knowledge, which might have made the students consider many points instead of focusing on the word's meaning. The groups receiving productive tasks might have spent a lot of time and effort to find the
appropriate target word to fill in the blanks or to generate a meaningful sentence by activating conceptual knowledge, and then apply meta-cognitive strategies of planning and monitoring. This extra mental effort involved in the productive tasks could have been a burden on memory, which brought a significant decrease in four weeks.

## CHAPTER 5

## CONCLUSION

### 5.1. Summary of the Study

This study aimed to find out the effects of receptive and/or productive tasks on vocabulary gains. In doing this, whether using receptive, productive, mixed tasks or no tasks for the vocabulary practice make difference in the receptive and productive vocabulary gains of the students was investigated. Moreover, any significant difference in the students' receptive and productive vocabulary gains among the groups was examined in different test intervals. Additionally, when a total retention test was applied six weeks after the applications of word sets, whether the groups differ in their receptive and productive vocabulary gains was scrutinized. In order to reach these aims, 4 lower-intermediate classes were randomly grouped as receptive, productive, mixed task and control groups. 16 target words, a set of 8 words in each, were explicitly taught and practiced with receptive, productive, or mixed tasks for two word sets. The groups were tested on receptive and productive tests before, immediately after, 4 weeks and 6 weeks after the applications of word sets.

The results within groups revealed that all groups showed a statistically significant increase in their scores both in receptive and productive parts from pre tests to post tests. With regard to receptive tests, no significant decrease was observed in task groups from immediate to delayed post test. In the productive tests, on the other hand, although receptive task group was able to retain its
gains from immediate to delayed post test, there was a significant decrease in the other groups over time.

The present study also examined the receptive and productive vocabulary gains between groups to find out whether there was a significant difference in students' receptive and productive vocabulary gains among the groups. Both in the receptive and productive tests, all groups receiving tasks (receptive, productive or mixed) significantly outperformed the control group. However, on no account were there significant differences between the groups which received different tasks, which may show that none of the tasks (receptive, productive or mixed) was better than the other to increase receptive or productive vocabulary gains.

As for the total retention test, under no circumstances were receptive or productive gains of the students affected from the tasks over time as long as they took any of them. In other words, different tasks did not have different effects on receptive and productive vocabulary gains over time.

To conclude, no matter which task was preferred (receptive and/or productive), students' receptive and productive vocabulary gains were not influenced as long as they dealt with any of them. Handling tasks after vocabulary instruction is necessary to retain vocabulary.

### 5.2. Conclusions of the Study

This section is going to present the concluding remarks reached in the light of the results of this study.

Firstly, when the groups were investigated within themselves, the results of the study lead us to the conclusion that all the task groups' (receptive, productive or mixed) receptive scores were found to have increased significantly, and they did not experience forgetting over time. In the productive parts of the tests, on the other hand, it was the receptive task group which did not show significant amount of forgetting over time. The productive, mixed and control groups proved a significant decrease from immediate to delayed tests. Therefore, any kind of task after explicit instruction can do the trick to retain receptive vocabulary knowledge. As for the productive vocabulary knowledge, on the other hand, receptive tasks could provide superior vocabulary retention over time as it proved no significant decrease in its gains over time contrary to other groups.

Secondly, it can be concluded from the study that despite receiving different types of tasks, there were no significant differences among the task groups in receptive and productive gains. This conclusion drawn from these results highlighted the significance of the fact that dealing with any kind of task (receptive and/or productive) following explicit instruction was a requirement for better vocabulary gains.

Similar effects of divergent tasks on students' vocabulary gains on the total retention test applied six weeks after the treatments including 16 target words together can be put as the third conclusion drawn from the results of this study. Again, no significant difference was found between receptive, productive and mixed task groups, which signifies the importance of the fact that receiving
instruction plus tasks bring superior retention even six weeks after the treatments.

### 5.3. Pedagogical Implications of the Study

As far as words are concerned, it should be highlighted that explicit vocabulary instruction without tasks does not lead to observably sufficient gains at the end of an individual class. It is essential newly learnt target words be practiced through either receptive and/or productive tasks following explicit instruction. However, whether it is a receptive and/or productive task does not make any difference as long as any of them is dealt with by the learners.

In this study, students were exposed to the target words in many different contexts, which is crucial for a word to be retained.

Depending on the findings of the study, it can be recommended that students be given tasks for the maintenance of the target items in terms of both receptive and productive gains. Just vocabulary instruction without tasks was proved to be insufficient for vocabulary gains. In order to ensure better vocabulary retention, students need to receive vocabulary instruction plus tasks. In addition to these, students should be exposed to many encounters in different comprehensible and meaningful context to retain the newly presented words better.

### 5.4. Suggestions for the Further Research

This study included lower-intermediate level preparatory class students.
A study on different age groups can be conducted to see whether the different
tasks may have different effects on them. Moreover, a replication of this study can be applied to students from different proficiency levels to find out whether the different tasks show different effects regarding proficiency level.

The current study focused on a small number or words, 8 verbs and 8 nouns. A study which focuses on a larger scale of target words maybe from various parts of speech may give dissimilar results.

A deeper analysis of the words can be done to explore whether nouns or verbs retained more by the learners.

An investigation of whether the words gained were different or not in the groups receiving different tasks in terms or frequency can be conducted.

## REFERENCES

Barcoft, J. (2002). Semantic and Structural Elaboration in L2 Lexical Acquisition. Language Learning, 52:2, 323-363.

Barcoft, J. (2004). Effects of sentence writing in second language lexical acquisition. Second Language Research. 20, 4, 303-334.

Barcoft, J. (2006) Can writing a new word detract from learning it? More negative effects of forced output during vocabulary learning. Second Language Research, 22,4, 487-497.

Biemiller, A. (2005). Size and Sequence in Vocabulary Development: Implications for Choosing Words for Primary Grade Vocabulary Instuction. In P, Kamil, M. \& Hiebert, E. H. (Eds.), Teaching and Learning Vocabulary Bringing Research to Practice (223-254). New Jersey, USA: Lawrence Erlbaum Associates, Publishers.

Blachowicz, C. L. Z. (1993). C(2)QU: Modelling Context Use in the Classroom. The Reading Teacher, 47, 3. Ed by: Rasinski, et al. Teaching Word Recognition, Spelling, and Vocabulary. (76-79). USA: International Reading Association.

British National Corpus (2003). Retrieved on November 16, 2007 from: http://www.wordcount.org/main.php.

Clariana, R. B., Lee, D. (2001). The Effects of Recognition and Recall Study Tasks with Feedback in a Computer-Based Vocabulary Lesson. Educational Technology Research \& Development, 49 (3), 23-36.

Choi, J. (2007). The Effect of Receptive and Productive Tasks on Lexical Knowledge Development. Master Thesis, 2007, Michigan State University.
de la Fuente, M. (2002). Negotiation and Oral Acquisition of L2 Vocabulary. Studies in Second Language Acquisition, 24, 81-112.
de la Fuente, M. (2006). Classroom L2 vocabulary acquisition: investigating the role of pedagogical tasks and form-focused instruction. Language Teaching Research, 10,3, 263-295.

Edwards, E. C., Font, G., Baumann, J. F., Boland, E. (2004). Unlocking Word Meanings: strategies and Guidelines for Teaching Morphemic and Contextual Analysis. In Baumann, J F. \& Kame'enui, E. J. (Eds.), Vocabulary Instruction. Research to Practice. (159-178). New York: The Guilford Press.

Ellis, R. (1997). Second language Acquisition. (31-70). Oxford University Press: New York.

Ellis, R., He, X. (1999). The Roles of Modified Input and Output in the Incidental Acquisition of Word Meanings. Studies in Second Language Acquisition, 21, 285-301.

Elley, W. B. (1989). Vocabulary Acquisition from Listening to Stories. Reading Research Quarterly, 24/2, 174-187.

Fan, M. (2000). How Big is the Gap and how to Narrow it? An Investigation into the Active and Passive Vocabulary Knowledge of Learners. RELC Journal, 31, 105-119.

Flesch-Kincaid Grade Level Formula. Retrieved on November 17, 2007 from: http://www.standards-schmandards.com/exhibits/rix/

Frantzen, D. (2003). Factors Affecting How Second Language Spanish Students Derive Meaning from Context. The Modern Language Journal, 87, 168-199.

Gass, S., M., \& Selinker, L. (2001). Second Language Acquisition: An introductory course. Mahwah, NJ:Erlbaum.

Harmer, J. (1991). The Practice of English Language Teaching. Longman: UK. (153-180).

Harmer, J. (2003). The Practice of English Language Teaching. Longman: UK. (4th ed., 229-247).

Hazenburg, S., Hulstijn, J. H. (1996). Defining a Minimal Receptive Second Language Vocabulary for Non-native University Students: an Empirical Investigation. Applied Linguistics, 17,2, 145-163.

Henriksen, B. (1999). Three Dimensions of Vocabulary Development. Studies in Second Language Acquisition, 21, 303-317.

Hulstjin, J., Laufer, B. (2001). Some Empirical Evidence for the Involvement Load Hypothesis in Vocabulary Acquisition. Language Learning, 51:3, 539-558.

Jacobs, H.L., Hartflel, V. F., Hughey, J. B., Wormuth, D. R. (1981). ESL Composition Profile. Newbury House Publisher. Retrieved from http://eli.tamu.edu/resources/profile.html on 25.07.2008.

Joe, A. (1998). What Effects do Text-based Tasks Promoting Generation Have on Incidental Vocabulary acquisition. Applied Linguistics, 19/3, 357-377.

Kamil, M., Hiebert, E. H. (2005). Teaching and Learning Vocabulary: Perspectives and Persistent Issues. In P, Kamil, M. \& Hiebert, E. H. (Eds.), Teaching and Learning Vocabulary Bringing Research to Practice (1-23). New Jersey, USA: Lawrence Erlbaum Associates, Publishers.

Laufer, B. (1997). The Lexical Plight in Second Language Reading. Words you don't know, words you think you know, words you can't guess. Ed. by Coady,
J. \& Huckin, T. Second Language Vocabulary Acquisition. (20-34). UK: Cambridge.

Laufer, B. (1998) The Development of Passive and Active Vocabulary in a Second Language: Same or Different? Applied Linguistics, 19/2, 255-271.

Laufer, B., Hulstijn, J. (2001). Incidental Vocabulary Acquisition in a Second Language: The Construct of Task-Induced Involvement. Applied Linguistics, 22/1, 1-26.

Laufer, B., \& Paribakht, S. (1998). The relationship between passive and active vocabularies: Effects of language learning contexts. Language Learning, 48, 365391.

Laufer, B \& Nation, P. (1999) A vocabulary-size test of controlled productive ability. Language Testing, 16/1, 33-51.

Laufer, B., \& Goldstein, S. (2004). Testing vocabulary knowledge: Size, strength, and computer adaptiveness. Language Learning, 54, 399-436.

Laufer, B., Sim, D.D. (1985). Measuring and Explaining the Reading Threshold Needed for English for Academic Purposes Texts. Foreign Language Annals, 18:5, 405-411.

Lee, S. (2003) ESL learners' vocabulary use in writing and the effects of vocabulary instruction. System, 31, 537-561.

Liao, P. (2006). EFL Learners' Beliefs about and Strategy Use of Translation in English Learning. RELC Journal, 37, 191-215.

Libben, G., Gibson, M., Yoon,Y. B., Sandra, D. (2003). Compound Fracture: The Role of Semantic Transparency and Morphological Headedness. Brain and Language, 84, 50-64.

McCarthy, M. (1990). Vocabulary. New York: Oxford.
McKeown, M. G., Beck, I. L. (2004). Direct and Rich Vocabulary Instruction. Ed by Baumann J. F. \& Kame'enui, E. J., Vocabulary Instruction: Research to Practice. (13-27). New York: The Guilford Pres.

Melka, F. (1997). Receptive vs. productive aspects of vocabulary. In N. Schmitt \& M. McCarthy (Eds.), Vocabulary: Description, acquisition, and pedagogy (pp. 84102). Cambridge: Cambridge University Press. UK.

Mondria, J. (2003). The Effects of Inferring, Verifying, and Memorizing on the Retention of L2 Word Meanings: An Experimental Comparison of the "Meaning-Inferred Method" and the "Meaning-Given Method". Studies in Second Language Acquisition, 25, 473-499.

Mondria, J., \& Wiersma, B. (2004). Receptive, productive, and receptive + productive L2 vocabulary learning: What difference does it make? In P, Boggards \& B, Laufer (Eds.), Vocabulary in a second language: selection, acquisition, and testing (pp. 79-102). Philadelphia, PA: John Benjamins.

Morimoto, S., Loewen, S. (2007). A Comparison of the effects of image-schemabased instruction and translation-based instruction on the acquisition of L2 polysemous words. Language Teaching Research, 11,3, 347-372.

Nagy, W. (1988). Teaching Vocabulary to Improve Reading Comprehension. ERIC Clearinghouse on Reading and Communication Skills, NCTE, IRA. U.S.

Nagy, W., Herman, P., Anderson, R. (1985). Learning words from context. Reading Research Quarterly, XX/2, 233-253.

Nagy, W. (2005). Why Vocabulary Instruction Needs to br Long-Term and Comprehensive. In P, Kamil, M. \& Hiebert, E. H. (Eds.), Teaching and Learning Vocabulary Bringing Research to Practice (27-44). New Jersey, USA: Lawrence Erlbaum Associates, Publishers.

Nation, I. S. P. (2001). Learning vocabulary in another language. Cambridge: Cambridge University Press.

Nation, P., Newton, J. (1997). Teaching Vocabulary. In J. Coady \& T. Huckin (Eds.), Second Language Vocabulary Acquisition (238-254). Cambridge: Cambridge University Press.

Nation, P., Meara, P. (2002). Vocabulary. In Schmitt, R. (Eds.), An Introduction to Applied Linguistics. (35-54). London: Arnold.

Paribakht, T., \& Wesche, M. (1997). Vocabulary enhancement activities and reading for meaning in second language vocabulary acquisition. In J. Coady \& T. Huckin (Eds.), Second Language Vocabulary Acquisition (pp. 174-200). Cambridge: Cambridge University Press.

Prince, P. (1996). Second Language Vocabulary Learning: The Role of Context versus Translations as a Function of Proficiency. The Modern Language Journal, 80, 478-493.

Pulido, D. (2003). Modeling the role of second language proficiency and topic familiarity in second language incidental vocabulary acquisition through reading. Language Learning, 53,233-284

Pulido, D. (2007). The effects of topic familiarity and passage sight vocabulary on L2 lexical inferencing and retention through reading. Applied Linguistics, 28, 66-86.

Qian, D. D. (1999). Assessing the Roles of Depth and Breadth of Vocabulary Knowledge in Reading Comprehension. The Canadian Modern Language Review, 56,2, 282-307.

Qian, D. D. (2002). Investigating the Relationship between Vocabulary Knowledge and Academic Performance: An Assessment Perspective. Language Learning, 52:3, 513-536.

Qian, D. D. \& Schedl, M. (2004). Evaluation of an In-depth Vocabulary Knowledge Measure for Assessing Reading Performance. Language Testing, 21, 28-52.

Read, J. (2000). Assessing Vocabulary. Cambridge: Cambridge University Press. UK. (p: 154-155).

Richards, J. C. (1976). The role of vocabulary teaching. TESOL Quarterly, 10, 77-89.
Sagara, N., \& Alba, M. (2006). The Key is in the Keyword: L2 Vocabulary Learning Methods with Beginning Learners of Spanish. The Modern Language Journal, 90:2, 228-243.

Schmitt, N. (2000). Vocabulary in language teaching. New York: Cambridge University Press. UK.

Schmitt, N. (2008). Review Article Instructed Second Language Vocabulary Learning. Language Teaching Research, 12,3, 329-363.

Schmitt, N., Maera, P. (1997). Researching Vocabulary through a Word Knowledge Framework Studies in Second Language Acquisition, 20, 17-36.

Schmitt, N., Schmitt, D., Clapham, C. (2001). Developing and Exploring the Behaviour of Two New Versions of the Vocabulary Test. Language Testing, 18 (1), 55-88.

Schneider, V. I., Healy, A. F., Bourne, L.E. (2002). What is Learned under Difficult Conditions is Hard to Forget: Contextual Interference Effects in Foreign Vocabulary Acquisition, Retention, and Transfer. Journal of Memory and Language, 46, 419-440.

Stahl, S.A. (1999). Vocabulary Development. Brookline Books. USA.
Stahl, S.A. (2005). Four Problems With Teaching Word Meanings (And What to do to MAke Vocabulary an Integral Part of Instuction). In P, Kamil, M. \& Hiebert, E. H. (Eds.), Teaching and Learning Vocabulary Bringing Research to Practice (95-114). New Jersey, USA: Lawrence Erlbaum Associates, Publishers.

Thornbury, S. (2002). How to Teach Vocabulary. Ed. by Harmer, J. Longman, England.

Vidal, K. (2003). Academic Listening: A Source of Vocabulary Acquisition?. Applied Linguistics, 24/1, 56-89.

Waring, R. (1997). A study of receptive and productive vocabulary learning from word cards. Retrieved on December 15, 2007 from: http://www1.harenet.ne.jp/waring/papers/papers.html.

Watanabe, Y. (1997). Input, Intake, and Retention: Effects of Increased Processing on Incidental Learning of Foreign Language Proficiency. Studies in Second Language Acquisition, 19, 287-307.

Webb, S. (2005). Receptive and Productive Vocabulary Learning. Studies in Second Language Acquisition, 27, 33-52.

Zareva, A. (2005). Models of Lexical Knowledge Assessment of Second Language Learners of English at Higher Levels of Language Proficiency. System, 33, 547-562.

Zareva, A., Schwanenflugel, P., Nikolova, Y. (2005) Relationship Between Lexical Competence And Language Proficiency. Studies in Second Language Acquisition, 27, 567-595.

Zhang, L. J., Anual, S. B. (2008). The Role of Vocabulary in Reading Comprehension: The Case of Secondary School Students Learning English in Singapore. RELC Journal, 39, 51-76.

Zimmerman, C. B. (1997). Historical Trends in Second Language Vocabulary Instruction. Ed. by Coady, J. \& Huckin, T. Second Language Vocabulary Acquisition. (5-19). UK: Cambridge.

## APPENDIX 1-A (WORD SET I-PRESENTATION)

## Heir:

- Prince Charles is the heir to the British throne, which means he will become the next king.
- Some people can't be happy when they are the heir of their rich relatives who have died if those people are very important for them.
(a person who will legally receive money, property or a title from another person, especially an older member of the same family, when that other person dies)

Noun

- When Kemal Sunal died, who was his heir?
- What can a person receive if he is an heir of someone?
- Who can be an heir of a dead person?


## Innovation:

- Many people believe that antibiotics was the most important medical innovation of the $20^{\text {th }}$ century.
- Everybody should support innovation because we can't do many things without learning many new ideas or methods.
(A new thing, idea or method of doing something)
Noun
- What innovation is indispensable for you?
- What will be the biggest innovation in ten years?


## Triumph:

- He was the ninth child of a poor family. He didn't take any private lessons like other students, but he was able to enter a university to be a medical doctor, which was a triumph for him.
- Michael Schumacher won the F1 race for ninety-one times in fifteen years; it was a triumph.
(a great achievement)
Noun
- What is the biggest triumph of Atatürk?
- What does a person need to make a triumph?


## Conviction:

- Hugo's conviction -his strong belief- that they will overcome all their problems made Mandy stronger.
- He is a man of conviction. He will do nothing that he does not believe.
- He reported that he had killed the famous reporter not for fame, money or title, but for his conviction.
(very strong belief or opinion)
Noun
- What can people do for their convictions?
- What conviction made you study at a university?


## Detain:

- Some students tried to detain the teacher while she was going to her class because other students were preparing a big surprise for her.
- Because an old man detained him before he arrived at the bus stop, he missed the bus and had to walk home.
(to delay someone for a short time by talking to them)
verb
- Who can detain you just before you leave your home?
- Why can you want to detain somebody?


## Startle:

- Just after the midnight, a sudden sound startled the old lady. It was obvious that she was not going to be able to sleep that night because of the mice squeaking.
- The horn of the Es-tram may startle people if they are walking down the Doktorlar Street, hands in pockets, and mind lost in thought.
(to alarm, frighten, or surprise suddenly)
verb
- What can startle you if you are alone at home?
- What do you do if you want to startle someone?


## Snatch:

- Bob snatched the newspaper from his wife's hand because he wanted to read it first.
- A little girl was eating her candy, but suddenly a fat boy came and snatched her candy. Then the girl started to cry.
(to take something quickly and suddenly without permission)
Verb
- What can a thief snatch?
- If someone snatches your chair when you are about to sit on it, what happens?


## Glance:

- While the police were running after the thief, he glanced back to see whether they were still following him.
- The young man glanced at the mystery woman's table only to discover whether her seat was empty. He didn't want to look at her for a long time because he didn't want her to see him.
(to look at something quickly and then look away immediately)
Verb
- If someone glances at you while walking on the street, does it mean that he knows you well?
- What do you need to know before you glance at an article?


## APPENDIX 1-B (READING TEXT)

## 'Bernardo, $\partial$ (п) lucky man'

The $13^{\text {th }}$ November, 2000, was the date which Bernardo considered his second birthday. On that day his life changed completely because he met the love of his life. He fell in love with Jessica at first sight and was flying in the clouds. On the same day, he learned that he was the heir of his millionaire uncle whom he had never met before. In other words, he was going to receive all the money his mysterious uncle had because he had died. "What a day!" Bernardo thought. He was a millionaire and in love!

Bernardo was just an ordinary person, so he had to be clever and careful when spending his money. He thought a lot about his situation and decided to open an Ita-Thai restaurant! He planed to combine traditional Italian and Thai food. The combination of Italian and Thai food was a new taste which nobody had previously discovered. It was an innovation! He invented 'the pizza with fried insects' and made such delicious pizzas that Italian people loved his style. It was a great success for him; that is, it was a triumph!

At first, even Bernardo himself didn't expect such popularity for his 'pizza with fried insects', but Jessica's strong belief in his success, or her conviction, had helped him a lot. He was sure that without her support, he could never have reached success!

On $13^{\text {th }}$ November, 2007, Bernardo was getting ready to celebrate his birthday once again. He had made great plans with Jessica. He put all his money and the official documents for the restaurant and his home into a bag. While Bernardo was walking to his car, a poor man came up to him and asked the time. It was $6: 55 \mathrm{pm}$. Then the poor man asked whether Bernardo was the owner of the restaurant, why he was in a hurry and what kind of food was served in the restaurant. Bernardo didn't realize that the poor man had detained him. He didn't understand that the poor man was trying to stop him from leaving by asking many questions. Suddenly, the scream of a woman startled Bernardo. The noise surprised and frightened him. It was Jessica's voice. Then he heard a gunshot. As he tried to understand what had happened, a man
snatched his bag which was the full of money and documents. Bernardo was shocked. Someone had pulled his bag from him and stolen it, but he couldn't see the man clearly. He had only been able to glance at him for a second, but there were so many people around, and he couldn't see the man anywhere. Instead of continuing to look for the man, Bernardo tried to find Jessica. He ran into the darkness of a narrow street and could still hear her voice. The man who had taken his bag was also trying to kidnap Jessica. Bernardo ran and called the police on his cell phone at the same time. Bernardo suddenly stopped when he heard a gunshot. He saw Jessica lying in blood. The man had killed her because she had made so much noise and prevented him from running away. Bernardo couldn't believe what was happening.

Bernardo finally thought that on his birthday, $13^{\text {th }}$ November, 2007, he had lost both his darling and his money.

## Comprehension Questions:

1. Why did Bernardo consider $13^{\text {th }}$ November as his second birthday?
2. How did he spend the money that he inherited from his uncle?
3. What was his invention?
4. Why did the poor man ask him many questions
5. What happened at the end of the story?

## APPENDIX 1-C (RECEPTIVE TASKS)

## TASKS

## A-Match each word with the correct definition on the right. There is one extra!

1. heir
2. innovation
3. triumph
4. conviction
5. detain
6. startle
7. snatch
8. glance
a) to take a quick look
b) to take or pull something away quickly
c) a place to stay
d) something new
e) to delay somebody
f) the person with legal right to receive money, property, or title when its owner dies
g) success
h) a firmly held belief or opinio $n$
i) to make somebody surprised or frightened

## B-Choose one of the options which makes each sentence meaningful.

1) $A / a n$ $\qquad$ gained with a lot of effort can easily turn into sad disappointment.
a) triumph
b) heir
c) conviction
d) innovation
2) A man was on the roof of a building and was about to commit suicide (kill himself). The people on their balconies tried to $\qquad$ him by the time the police and ambulance arrived.
a) glance
b) snatch
c) detain
d) startle
3) When Vehbi Koç died, Rahmi Koç was his $\qquad$ .
a) innovation
b) heir
c) conviction
d) triumph
4) As soon as I arrive home, my mother $\qquad$ at my face and understands whether I am happy, sad or angry.
a) snatches
b) startles
c) glances
d) detains
5) The politicians say that Turkey has not been affected by the economic crisis, and claim that it is their $\qquad$ _.
a) heir
b) triumph
c) innovation
d) conviction
6) You can see all the latest $\qquad$ in teenagers' hands as they all have laptops, MP3 players, cell-phones with high-quality cameras.
a) innovations
b) convictions
c) heirs
d) triumphs
7) A young employee tried hard to fix the broken car, but he wasn't able to do it. Then his chief arrived and $\qquad$ the tools from his hand, and fired him.
a) glanced
b) snatched
c) detained
d) startle
8) There happened a terrible car accident by the river last night. The people who saw the wounded were $\qquad$ and couldn't stop their tears.
a) snatched
b) startled
c) glanced
d) detained
9) On religious festivals, all relatives in each family come together for their religious $\qquad$ .
a) triumphs
b) innovations
c) heirs
d) convictions
10. Before the wedding, we were at Jewelry's to buy our wedding rings. There was a couple who was also trying some rings on their fingers. While the woman was $\qquad$ the owner of the store by asking the value and the price of the rings, the man stole two bracelets.
a) glancing
b) startling
c) detaining
d) snatching
11. Eskişehirspor crashed Galatasaray 4-2 a few weeks ago. But its
$\qquad$ was short-lived because in their next match Ankaraspor defeated Eskişehirspor with a 2-0-win.
a) heir
b) conviction
c) innovation
d) triumph
12. When the police asked the poor old lady "Was this the man you saw stealing your bag?" the lady said "I am not sure, I only $\qquad$ at him for one second, then he disappeared."
a) startled
b) detained
c) glanced
d) snatched
13. Betty cannot tolerate losing. Last week while we were playing cards, she was about to lose the game. As soon as she understood that, she $\qquad$ the cards from Archie's hand and left the café.
a) startled
b) detained
c) glanced
d) snatched
14. It is really hard to keep up with technological $\qquad$ . You buy the latest version of a cell phone one day, and they make a better version the next day.
a) heirs
b) convictions
c) innovations
d) triumphs
15. His moral $\qquad$ prevented him from spending the money he had collected from his friends for the treatment of a poor girl for fun.
a) heirs
b) convictions
c) innovations
d) triumphs
16. While Judy was thinking of her dead parents, the ring of the phone $\qquad$ her.
a) startled
b) detained
c) glanced
d) snatched
17. A king's eldest son is the $\qquad$ to the throne.
a) heir
b) conviction
c) innovation
d) triumph

C-Odd one out: for each group, circle the word that does not belong to that group.

| 1. receiver | fighter | heir | inheritor |
| :--- | :--- | :--- | :--- |
| 2. innovation | custom | habit | regular |
| 3. victory | failure | triumph | success |
| 4. conviction | religion | principle | belief |
| 5. rush | detain | hasten | quicken |
| 6. startle | frighten | terrify | relax |
| 7. give | snatch | receive | take |
| 8. watch | focus | stare | glance |

## APPENDIX 1-D (PRODUCTIVE TASKS)

## TASKS

A-Write one appropriate word which corresponds the meaning in each definition. There is one extra!

1) success: $\qquad$
2) $\qquad$
look: $\qquad$
3) something new: $\qquad$
4) to delay somebody:
5) a place to stay:
6) the person with legal right to receive money, property or title when its owner dies: $\qquad$
7) to take or pull something away quickly: $\qquad$
8) a firmly held belief or opinion:
9) to make somebody surprised or frightened: $\qquad$

B-Fill in the blanks with appropriate words you have learned. You can use each word more than once.

1. A $\qquad$ gained with a lot of effort can easily turn into sad disappointment.
2. A man was on the roof of a building and was about to commit suicide (kill himself). The people on their balconies tried to $\qquad$ him by the time the police and ambulance arrived.
3. When Vehbi Koç died, Rahmi Koç was his $\qquad$ .
4. As soon as I arrive home, my mother $\qquad$ at my face and understands whether I am happy, sad or angry.
5. The politicians say that Turkey has not been affected by the economic crisis, and claim that it is their $\qquad$ .
6. You can see all the latest $\qquad$ in teenagers' hands as they all have laptops, MP3 players, cell-phones with high-quality cameras.
7. A young employee tried hard to fix the broken car, but he wasn't able to do it. Then his chief arrived and $\qquad$ the tools from his hand, and fired him.
8. There happened a terrible car accident by the river last night. The people who saw the wounded were $\qquad$ and couldn't stop their tears.
9. On religious festivals, all relatives in each family come together for their religious $\qquad$ -.
10.Before the wedding, we were at Jewelry's to buy our wedding rings. There was a couple who was also trying some rings on their fingers. While the woman was $\qquad$ the owner of the store by asking the value and the price of the rings, the man stole two bracelets.
10. Eskişehirspor crashed Galatasaray 4-2 a few weeks ago. But its __ was short-lived because in their next match Ankaraspor defeated Eskișehirspor with a 2-0-win.
11. When the police asked the poor old lady "Was this the man you saw stealing your bag?" the lady said "I am not sure, I only $\qquad$ at him for one second, then he disappeared."
12. Betty cannot tolerate losing. Last week while we were playing cards, she was about to lose the game. As soon as she understood that, she $\qquad$ the cards from Archie's hand and left the café.
13. It is really hard to keep up with technological $\qquad$ . You buy the latest version of a cell phone one day, and they make a better version the next day.
14. His moral $\qquad$ prevented him from spending the money he had collected from his friends for the treatment of a poor girl for fun.
15. While Judy was thinking of her dead parents, the ring of the phone
$\qquad$ her.
16. A king's eldest son is the $\qquad$ to the throne.

## C-Unscramble the words below and form one sentence for each word.

1.ivnointocc $\qquad$
2.ncgael $\qquad$
3.latetsr $\qquad$
4.prtuhim $\qquad$
$\qquad$
5.idnaet
6.oaonnvitin
7.nahtsc
8.ihre

## APPENDIX 1-E (RECEPTIVE+PRODUCTIVE TASKS)

## TASKS

## A-Match each word with the correct definition on the right. There is one extra!

1. heir
a) to take a quick look
2. innovation
b) to take or pull something away quickly
3. triumph
c) a place to stay
4. conviction
d) something new
5. detain
e) to delay somebody
6. startle f) the person with legal right to receive money, property, or title when its owner dies
7. snatch
g) success
8. glance
h) a firmly held belief or opinion
i) to make somebody surprised or frightened

## B-1) Choose one of the options which makes each sentence meaningful.

1) $A / a n$ $\qquad$ gained with a lot of effort can easily turn into sad disappointment.
a) triumph
b) heir
c) conviction
d) innovation
2) A man was on the roof of a building and was about to commit suicide (kill himself). The people on their balconies tried to $\qquad$ him by the time the police and ambulance arrived.
a) glance
b) snatch
c) detain
d) startle
3) When Vehbi Koç died, Rahmi Koç was his $\qquad$ .
a) innovation
b) heir
c) conviction
d) triumph
4) As soon as I arrive home, my mother $\qquad$ at my face and understands whether I am happy, sad or angry.
a) snatches
b) startles
c) glances
d) detains
5) The politicians say that Turkey has not been affected by the economic crisis, and claim that it is their $\qquad$ ـ.
a) heir
b) triumph
c) innovation
d) conviction
6) You can see all the latest $\qquad$ in teenagers' hands as they all have laptops, MP3 players, cell-phones with high-quality cameras.
a) innovations
b) convictions
c) heirs
d) triumphs
7) A young employee tried hard to fix the broken car, but he wasn't able to do it. Then his chief arrived and $\qquad$ the tools from his hand, and fired him.
a) glanced
b) snatched
c) detained
d) startle
8) There happened a terrible car accident by the river last night. The people who saw the wounded were $\qquad$ and couldn't stop their tears.
a) snatched
b) startled
c) glanced
d) detained
9) On religious festivals, all relatives in each family come together for their religious $\qquad$
a) triumphs
b) innovations
c) heirs
d) convictions

## B-2) Fill in the blanks with appropriate words you have learned. You can use one word twice.

1. Before the wedding, we were at Jewelry's to buy our wedding rings. There was a couple who was also trying some rings on their fingers. While the woman was $\qquad$ the owner of the store by asking the value and the price of the rings, the man stole two bracelets.
2. Eskişehirspor crashed Galatasaray 4-2 a few weeks ago. But its
$\qquad$ was short-lived because in their next match Ankaraspor defeated Eskişehirspor with a 2-0-win.
3. When the police asked the poor old lady "Was this the man you saw stealing your bag?" the lady said "I am not sure, I only $\qquad$ at him for one second, then he disappeared."
4. Betty cannot tolerate losing. Last week while we were playing cards, she was about to lose the game. As soon as she understood that, she $\qquad$ the cards from Archie's hand and left the café.
5. It is really hard to keep up with technological $\qquad$ . You buy the latest version of a cell phone one day, and they make a better version the next day.
6. His moral $\qquad$ prevented him from spending the money he had collected from his friends for the treatment of a poor girl for fun.
7. While Judy was thinking of her dead parents, the ring of the phone $\qquad$ her.
8. A king's eldest son is the $\qquad$ to the throne.
9. The little child was so hungry that she decided to $\qquad$ a piece of cake from the table and run away before her mother saw her.

## C-Unscramble the words below and form one sentence for each word.

1.ivnointocc $\qquad$
2.ncgael
3. latetsr
4. prtuhim $\qquad$
5.idnaet $\qquad$
6.aonnvitin $\qquad$
7.nahtsc $\qquad$
8.ihre

## APPENDIX 1-F (PRE TEST, IMMEDIATE AND DELAYED POST TESTS)

## Vocabulary test

## A- Choose one of the options which makes each sentence meaningful.

1. When I $\qquad$ at the speed indicator of the car on the highway, I was shocked as it showed $210 \mathrm{~km} / \mathrm{h}$.
a) detained
b) invaded
c) demolished
d) glanced
2. If your bag is $\qquad$ from you, let it go. Don't run after the thief.
a) rejected
b) snatched
c) detained
d) deterred
3. Years ago, black $\qquad$ were forced to work on farms to plant cotton in the southern United States.
a) innovations
b) ranchers
c) heirs
d) slaves
4. It's my personal $\qquad$ that all terrorists should be locked away for life.
a) conviction
b) triumph
c) pleasure
d) starvation
5. After asking me what seemed like millions of questions in half an hour, they finally said "OK. Thank you, we will not $\qquad$ you any further. You can now buy another thing from the store instead of this jumper."
a) release
b) detain
c) overcome
d) glance
6. Is there any scientific $\qquad$ that a person's signature gives clues about his/her character?
a) evidence
b) precaution
c) innovation
d) triumph
7. Neil Armstrong stepped onto the Moon in1969, which was the greatest
$\qquad$ of the twentieth century.
a) triumph
b) possession
c) conviction
d) revolt
8. She $\qquad$ around the cafe to see whether her friends had arrived before her or not.
a) consumed
b) detained
c) spread
d) glanced
9. Many people believe that sooner or later the fight between good and evil will end in $\qquad$ for good.
a) vacation
b) heir
c) triumph
d) quest
10. She was concentrating on her new project and the door bell $\qquad$ her.
a) startled
b) struggled
c) glanced
d) distinguished
11. Would you $\qquad$ your job if you hit the jackpot on New Year's Eve?
a) glance
b) assume
c) quit
d) snatch
12. The young girl $\qquad$ the photos out of her father's hand before he had a chance to look at them. It was clear that she didn't want her father see the photographs of her with her boyfriend.
a) snatched
b) explored
c) stipulated
d) glanced
13. Joshua is a diabetic; in other words, his body cannot control the level of sugar in his blood. His disease $\qquad$ him from eating chocolate whenever he wants.
a) detain
b) snatches
c) prevents
d) cackles
14. The latest $\qquad$ in computer technology are amazing. Scientists can create robots which have human faces with mimes.
a) convictions
b) celebrities
c) contradictions
d) innovations
15. Some people are not happy to be the $\qquad$ to a relative's fortune as they would lose their relative to receive the money.
a) ransom
b) heir
c) innovation
d) nutrition

## Vocabulary test

## B- Fill in the blanks with suitable words to make each sentence meaningful. If it is possible try to use the words you have learnt.

1. Despite having a large family, they still had no son and $\qquad$ to their respectful company.
2. The thief had tried to $\qquad$ her purse when she was in Spain, but luckily she chased the thief away.
3. The cell phone is an $\qquad$ which has spread rapidly since the day it was invented.
4. While some dentists say that chocolate $\qquad$ teeth, others suggest that chocolate is not more harmful than other foods.
5. On the final exam, a student $\qquad$ at his friend's paper just for a second to see the answer of a question, but the teacher caught him.
6. The staff at the store had to $\qquad$ the shoplifter until the police arrived.
7. His admissions about his mysterious past $\qquad$ everyone in the room. They all sat in silence without showing any reaction for a long time.
8. The police $\qquad$ him for theft.
9. After grading students' exam papers, the teacher gave them to her students so that they could see their mistakes. Because Judy took a very poor grade, she wanted to $\qquad$ the paper from the teacher's hand as soon as she heard her name. Maybe she did not want the others to see her paper.
10. Ashley believes that she has the control of her $\qquad$ . She thinks she can choose where and what she is going to be, and change the way of her life.
11. Whenever I invited her for lunch, she $\qquad$ at her watch, and told me she had a class in ten minutes.
12. His political $\qquad$ didn't allow him to buy some certain products.
13. "Did I $\qquad$ you when I came in suddenly?", the boy asked the old woman who looked surprised and worried.
14. The concert was a musical $\qquad$ . Audiences listened to the orchestra carefully and closely.
15. The government gave him a $\$ 75.000$ $\qquad$ for his help to the police to arrest the murderer.

## APPENDIX 2-A (WORD SET II-PRESENTATION)

## Redundancy:

- Because of the crisis, many factories have stopped producing new goods and have fired many employees. Therefore, nowadays many people are experiencing redundancy.
- The financial chaos has meant 100,000 redundancies, in other words 100,000 people have lost their jobs.
(The condition of leaving a job as you are not necessary any more)
Noun
- How does a person feel when s/he faces redundancy?
- What may be the possible results of redundancy?
- What advice would you give to someone who is experiencing redundancy?


## Hesitation:

- I do not have any hesitation in lending my car to him because I am sure that he will drive it very carefully.
- One should definitely not feel hesitation when buying a plane ticket at the moment because air travel is cheaper than bus travel.
(A state of doubt or uncertainty)
Noun
- What are the possible reasons for hesitation when making a decision about marriage?
- To whom can you ask a private question without any hesitation:
to your best friend or a stranger?


## Fellow:

- It is very normal to have disagreement among fellows since work-life is stressful.
- One of my fellows at work phoned me yesterday to ask for help with the new project. Because there is competition and jealousy between us, I didn't agree to help him.
(A member of people who work at the same place)
Noun
- What problems could there be among fellows working in the same office?
- Name one of my (the researcher's) fellows


## Ammunition:

- The types of ammunition used in war the include bullets, bombs and rockets.
- The kids found eight guns and some ammunition in the garden while playing.

The guns were not in good condition as they were rusty, but some of the bullets and bombs were still usable.
(Things that can be fired from a weapon such as bullets or bombs)
Noun
-What is used in the game paint-ball as ammunition?
-What may happen to a person after he is shot in the head with a round of ammunition?

## Grasp:

- She had been looking for a mug with a cat figure on it. Therefore, when she saw one in a shop, she grasped it and went directly to the cashier.
- When she grasped the handle of the car door, her hand stuck to it because it was frozen.
(To take something in your hand and keep it tightly )
Verb
- What is a typical reaction of a person when he grasps an insect?
- What would you do if your three-year-old cousin grasped your final project and didn't want to give it back to you?


## Disguise:

- The king disguised himself as a villager to hear the real opinions of the people because when people see him as the king, they always say, "You are great! Everything is perfect."

To give a new appearance to a person or thing in order to hide its real or usual form

Verb

- What would you wear if you had to disguise yourself?
- Why would you disguise yourself?
- What should a man do to disguise himself to get into a women-
only-place?


## Shiver:

- She has a phobia. She is afraid of snakes. She even starts to shiver when she sees a toy snake.
- Poor boy! When he saw his father, his hands were shivering with fear. We thought his father had beat him many times.
(To shake because offear )
Verb
- Whenever Justine gets on an elevator, her whole body shivers.

What phobia does she have?
(Claustrophobia)

- What situation makes you shiver?


## Conceal:

- She always wears heavy make-up to conceal the birthmark on her face because she doesn't want people to see it.
- I tried to conceal my surprise when she told me her age. But she understood that I was shocked to hear that she was 25 although she looked 40.
(Not to let something be seen or known)
Verb
- In what situations do you need to conceal your feelings?
- What do you do to conceal your unhappiness from someone?


## APPENDIX 2-B (READING TEXT)

## 'Rage Against the Machine'

Technology is overwhelming our lives day by day. Some of us cannot live without it because it makes our lives easier, but some of us become victims of it. The story of John Brambles shows us one example of these victims of technology.
The new machine that the boss brought from Japan for the factory was doing John's job. Because he was no longer necessary or useful for the factory, he lost his job; in other words, John Brambles was facing redundancy.

When John learned that he had lost his job because of the latest technological machine, he couldn't decide what to do. He wasn't sure whether to accept the situation or to fight it. At that moment, everything was meaningless to him; therefore, John was unable to control himself. He was really angry with his boss because he had done his best while doing his job. He thought of his wife and children and his feelings brought him hopelessness. If the boss hadn't bought that machine, he wouldn't have lost his job.

Suddenly, he remembered his gun which was in a drawer at home. He grasped the gun. He took it in his hands and held it firmly. He had promised his father not to use the gun unless it was a matter of life and death. He thought for a while and decided that it really was a matter of life and death. Being jobless meant being uneasy, hungry, unhealthy and unhappy.

John waited for a while, but he didn't change his mind. He had no hesitation, so he was sure that he wanted to do this.

To his surprise, there was one round of ammunition in the gun, so he had only one chance to fire it.

Before leaving the house, he decided to disguise himself. He changed his appearance because he didn't want anybody to recognize him. To do so, he shaved his beard and put on his wife's clothes, disguising himself as a woman.

When he arrived at the factory, he looked for the boss and saw some of his fellows. Although he had worked with them for more than 15 years, no-one
recognized him, which made him think he had been successful in disguising himself.

When everybody left the room, he went in silently and took the gun out of his bag. His hands were shivering with fear; therefore, he stopped for a second as he had only one chance. Saying "I want my job back" John took a deep breath and shot at the machine. All he wanted was to kill the machine and put an end to the situation.

Everybody ran into the room as soon as they heard the gunshot. At first, they couldn't understand what had happened when they saw a woman with a gun trying to harm the machine. When they asked, John didn't want to explain what he thought or felt; he wanted to conceal his feelings and ideas, but he couldn't keep quiet any longer, and shouted, "I want my job back, I hate this machine. It is my 'rage against the machine'."

## Put the events into the correct order.

___John shot the machine.
___A new machine was bought.
___John disguised himself.
___John grasped his gun.
$\qquad$ John lost his job.

## APPENDIX 2-C (RECEPTIVE TASKS)

## TASKS

## A- Match each word with the correct definition on the right. Be careful, there is one extra definition.

1) redundancy
a) people who you work with
2) grasp
b) to tremble
3) ammunition
c) a state of having lost your job because there is no need for you
4) disguise
d) to take something in your hand and hold it firmly
5) fellow
e) to hide something
6) hesitation
f) to draw interest to someone or something
7) shiver
g) bullets that you fire from a gun
8) conceal
h) unwillingness to do something because you are not sure or you are worried
i) to change your appearance

## B- Choose one of the options which makes each sentence meaningful.

1. Computers have caused some $\qquad$ but have also created jobs.
a) ammunition
b) fellows
c) hesitations
d) redundancies
2. Although he spent hours to $\qquad$ drugs inside a statuette, security guards found them by the help of their dogs which were trained to smell drugs.
a) disguise
b) conceal
c) grasp
d) shiver
3. I knew that he liked me, but I was really shocked when he $\qquad$ both my hands and said "You are the lady that I want to live with till the end of my life. I want to marry you."
a) shivered
b) grasped
c) disguised
d) concealed
4. The old man was speaking so sincerely that the young woman agreed to sign the contract without any $\qquad$ _.
a) hesitation
b) ammunition
c) fellow
d) redundancy
5. Nobody realized what had happened but some men had stolen a bag of jewelry from the bride's room. The next day it was understood from camera records that the thieves had $\qquad$ themselves as waiters and escaped in an old blue car.
a) concealed
b) shivered
c) disguised
d) grasped
6. The thieves tried hard to $\qquad$ the property they stole from the store so that the police couldn't find it.
a) grasp
b) shiver
c) disguise
d) conceal
7. All soldiers fighting enemy forces have a great deal of $\qquad$ radios to keep in touch with other soldiers, first-aid for emergency and packed meals.
a) ammunition
b) fellows
c) hesitations
d) redundancies
8. Presenting his new project in front of the class was difficult for him. He was so nervous that his hands were $\qquad$ .
a) concealing
b) shivering
c) disguising
d) grasping
9. When Dr Wilshire decided to retire, all his $\qquad$ felt sad because they had learned a lot of new treatment methods from him.
a) redundancy
b) ammunition
c) fellows
d) hesitations
10. Both sisters wanted to wear the blue $t$-shirt that day. Because they both
$\qquad$ it, the $t$-shirt was torn. In the end, they could never wear it again.
a) disguised
b) concealed
c) grasped
d) shivered
11. The spy was able to $\qquad$ himself by wearing a long coat and a black hat. He was asked to get and report information about what the other organization team was planning.
a) grasp
b) conceal
disguise
d) shiver
12. Technology, well-trained soldiers, and $\qquad$ are the three key elements of a powerful army.
a) fellows
b) ammunition
c) hesitations
d) redundancies
13. She took voluntary $\qquad$ in order to protect her poor friend.
With her help, her poor friend still keeps his job.
a) hesitation
b) ammunition
c) fellow
d) redundancy
14. If your $\qquad$ are pleasant, you can always ask for help when you face any difficulty at work.
a) ammunition
b) redundancies
c) hesitations
d) fellows
15. After the accident, whenever she hears the sound of an ambulance, she starts to $\qquad$ as it reminds her of the accident.
a) shiver
b) grasp
c) disguise
d) conceal
16. We $\qquad$ our faces by wearing false moustache, beard and hats before robbing the bank so that the police could not identify us when they viewed the camera records.
a) concealed
b) disguised
c) shivered
d) grasped
17. Because he had $\qquad$ about which job he wanted, he missed both chances. He should have made a decision earlier.
a) redundancies
b) fellows
c) hesitations
d)ammunition

C- Odd one out: for each group, circle the word that does not belong to that group.

| 1. indecision | hesitation | sureness | uncertainty |
| :--- | :--- | :--- | :--- |
| 2. hold | free | grasp | grip |
| 3. quake | shiver | shake | relax |
| 4. ammunition | boots | bomb | rocket |
| 5. uncover | hide | mask | disguise |
| 6. redundancy | occupation | profession | employment |
| 7. open | reveal | conceal | show |
| 8. friend | enemy | partner | fellow |

## APPENDIX 2-D (PRODUCTIVE TASKS)

## TASKS

## A-Write one appropriate word which corresponds the meaning in each definition. Be careful, there is one extra definition!

1) people who you work with: $\qquad$
2) to tremble:
3) a state of having lost your job because there is no need for you: $\qquad$
4) to take something in your hand and hold it firmly: $\qquad$
5) to hide something:
6) to draw interest to someone or something: $\qquad$
7) to change your appearance:
8) bullets that you fire from a gun: $\qquad$
9 ) unwillingness to do something because you are not sure or you are worried: $\qquad$

## B- Fill in the blanks with appropriate words you have learned. You can use each word more than once.

1. Computers have caused some $\qquad$ but have also created jobs.
2. Although he spent hours to $\qquad$ drugs inside a statuette, security guards found them by the help of their dogs which were trained to smell drugs.
3. I knew that he liked me, but I was really shocked when he $\qquad$ both my hands and said, "You are the lady that I want to live with till the end of my life. I want to marry you."
4. The old man was speaking so sincerely that the young woman agreed to sign the contract without any $\qquad$ .
5. Nobody realized what had happened but some men had stolen a bag of jewelry from the bride's room. The next day it was understood from camera records that the thieves had $\qquad$ themselves as waiters and escaped in an old blue car.
6. The thieves tried hard to $\qquad$ the property they stole from the store so that the police couldn't find it.
7. All soldiers fighting enemy forces have a great deal of $\qquad$ , radios to keep in touch with other soldiers, first-aid for emergency and packed meals.
8. Presenting his new project in front of the class was difficult for him. He was so nervous that his hands were $\qquad$ —.
9. When Dr Wilshire decided to retire, all his $\qquad$ felt sad because they had learned a lot of new treatment methods from him.
10. Both sisters wanted to wear the blue t-shirt that day. Because they both
$\qquad$ it, the $t$-shirt was torn. In the end, they could never wear it again.
11. The spy was able to $\qquad$ himself by wearing a long coat and a black hat. He was asked to get and report information about what the other organization team was planning.
12. Technology, well-trained soldiers, and $\qquad$ are the three key elements of a powerful army.
13. She took voluntary $\qquad$ in order to protect her poor friend. With her help, her poor friend still keeps his job.
14. If your $\qquad$ are pleasant, you can always ask for help when you face any difficulty in at work.
15. After the accident, whenever she hears the sound of an ambulance, she starts to $\qquad$ as it reminds her of the accident.
16. We $\qquad$ our faces by wearing false moustache, beard and hats before robbing the bank so that the police could not identify us when they viewed the camera records.
17. Because he had $\qquad$ about which job he wanted, he missed both chances. He should have made a decision earlier.

## C- Unscramble the words below and form one sentence for each word.

1.rpsga $\qquad$
2.nceuyaddnr $\qquad$
3.ollewf $\qquad$

[^0]$\qquad$
5.ueisisdg
6.tauniionmm
7.hrsiev
8.oenaclc

## APPENDIX 2-E (RECEPTIVE+PRODUCTIVE TASKS)

## TASKS

## A- Match each word with the correct definition on the right. Be careful, there is one extra definition.

1) redundancy a) people who you work with
2) grasp
b) to tremble
3) ammunition
c) a state of having lost your job because there is no need for you
4) disguise
d) to take something in your hand and hold it firmly
5) fellow
e) to hide something
6) hesitation
f) to draw interest to someone or something
7) shiver
g) bullets that you fire from a gun
8) conceal
h) unwillingness to do something because you are not sure or you are worried
i) to change your appearance

## B- 1. Choose one of the options which makes each sentence meaningful.

1. Computers have caused some $\qquad$ but have also created jobs.
a) ammunition
b) fellows
c) hesitations
d) redundancies
2. Although he spent hours to $\qquad$ drugs inside a statuette, security guards found them by the help of their dogs which were trained to smell drugs.
a) disguise
b) conceal
c) grasp
d) shiver
3. I knew that he liked me, but I was really shocked when he $\qquad$ both my hands and said "You are the lady that I want to live with till the end of my life. I want to marry you."
a) shivered
b) grasped
c) disguised
d) concealed
4. The old man was speaking so sincerely that the young woman agreed to sign the contract without any $\qquad$ -.
a) hesitation
b) ammunition
c) fellow
d) redundancy
5. Nobody realized what had happened but some men had stolen a bag of jewelry from the bride's room. The next day it was understood from camera records that the thieves had $\qquad$ themselves as waiters and escaped in an old blue car.
a) concealed
b) shivered
c) disguised
d) grasped
6. The thieves tried hard to $\qquad$ the property they stole from the store so that the police couldn't find it.
a) grasp
b) shiver
c) disguise
d) conceal
7. All soldiers fighting enemy forces have a great deal of $\qquad$ radios to keep in touch with other soldiers, first-aid for emergency and packed meals.
a) ammunition
b) fellows
c) hesitations
d) redundancies
8. Presenting his new project in front of the class was difficult for him. He was so nervous that his hands were $\qquad$ .
a) concealing
b) shivering
c) disguising
d) grasping
9. When Dr Wilshire decided to retire, all his $\qquad$ felt sad because they had learned a lot of new treatment methods from him.
a) redundancy
b) ammunition
c) fellows
d) hesitations

## B- 2. Fill in the blanks with appropriate words you have learned. You can use one word twice.

1. She took voluntary $\qquad$ in order to protect her poor friend. With her help, her poor friend still keeps his job.
2. Both sisters wanted to wear the blue $t$-shirt that day. Because they both
$\qquad$ it, the $t$-shirt was torn. In the end, they could never wear it again.
3. The spy was able to $\qquad$ himself by wearing a long coat and a black hat. He was asked to get and report information about what the other organization team was planning.
4. Technology, well-trained soldiers, and $\qquad$ are the three key elements of a powerful army.
5. If your $\qquad$ are pleasant, you can always ask for help when you face any difficulty in at work.
6. After the accident, whenever she hears the sound of an ambulance, she starts to $\qquad$ as it reminds her of the accident.
7. We $\qquad$ our faces by wearing false moustache, beard and hats before robbing the bank so that the police could not identify us when they viewed the camera records.
8. Because he had $\qquad$ about which job he wanted, he missed both chances. He should have made a decision earlier.
9. You should try not to $\qquad$ your real personality if you want to find real friends.

C- Unscramble the words below and form one sentence for each word.
1.rpsga

| 2.nceuyaddnr___ |
| :--- |
| 3.ollewf__ |
| 4.ieattonish |

5.ueisisdg___
$\qquad$
6.tauniionmm
7.hrsiev $\qquad$
8.oenaclc $\qquad$

## APPENDIX 2-F (PRE TEST, IMMEDIATE AND DELAYED POST TESTS)

## Vocabulary test

## A- Choose one of the options which makes each sentence meaningful.

1. Men become more depressed when they get $\qquad$ compared to women because men have more responsibility to support their families financially. Therefore, losing a job is more difficult for them.
a) redundancy
b) exponent
c) ammunition
d) settler
2. When she $\qquad$ the tea cup, she suddenly dropped it because it was extremely hot.
a) shivered
b) disappeared
c) trespassed
d) grasped
3. Although I knew that he would lie, I still asked whether he had stolen my money or not. He answered, "No" without $\qquad$ , and proved he was a good liar.
a) contagion
b) hesitation
c) award
d) ammunition
4. Today, it is Obrah's birthday, and we are celebrating it in our office. On the cake, we wrote, "You are the nicest $\qquad$ in this workplace." Everybody loves her as she is both hardworking and helpful.
a) issue
b) fellow
c) ammunition
d) truce
5. These statuettes are a very important part of the cultural $\qquad$ of southern Turkey.
a) heritage
b) mystery
c) swarm
d) redundancy
6. She was really happy with her $\qquad$ because they were more than just friends she spent time at work with. They often had their lunch and dinner together. They also loved spending time together on the weekends.
a) redundancies
b) oaths
c) fellows
d) vacations
7. One of Paul's friends arrived at his home wearing a ghost costume as a birthday surprise. However, the poor birthday boy didn't recognize him, and
$\qquad$ for a long time.
a) faced
b) disguised
c) retreated
d) shivered
8. After the operation, he tried to $\qquad$ his pain, but it was clear from his face that he was in a great pain.
a) grasp
b) subvert
c) conceal
d) complain
9. Judy again asked me to lend her some money. Because she never pays it back, I $\qquad$ to give money to her.
a) disguised
b) grasped
c) manifested
d)refused
10. Some animals change their skin color intuitively when they are in danger. In this way, they $\qquad$ themselves as protection against other wild animals.
a) disguise
b) shiver
c) resuscitate
d) explore
11. Even if you think that your grandparents are wrong about their decision, you have to $\qquad$ their ideas.
a) oblige
b) respect
c) grasp
d) conceal
12. The Turkish War of Independence was fought with endless hopes and effort but with little $\qquad$ . Sometimes our brave soldiers ran after the enemy with guns not loaded with bullets or bombs.
a) poverty
b) ammunition
c) fellow
d) clearance
13. Yesterday a man committed suicide and he left a note. In the note, he wrote ,"I cannot bear to look at my hungry children because I did my best keep my job but I think $\qquad$ is my destiny like many people in our society. It is impossible to find a secure job."
a) hesitation
b) dignity
c) redundancy
d) friendliness
14. They had failed to take any $\qquad$ and last night there was another fatal accident.
a) hesitations
b) rostrums
c) precautions
d) fellows
15. While his teacher was announcing the final exam grades, it was very normal for John to $\qquad$ because he had to get at least 85 to pass the class.
a) conceal
b) correspond
c) blindfold
d) shiver

## Vocabulary test

## B- Fill in the blanks with suitable words to make each sentence meaningful.

1. Pam, a lazy girl, asked Anna, one of her friends, to take her Maths examination for her because her friend was extremely good at Maths. Anna agreed and $\qquad$ herself by changing the color of her hair and wearing Pam's clothes.
2. He decided to $\qquad$ the fact that he was going to take Fine Arts exam because his mother wanted him to be doctor.
3. The habit of eating too many sweet foods and drinking acidic drinks cause tooth $\qquad$ .
4. Although we had been $\qquad$ for more than 10 years and worked on many projects together, I was truly happy when he said he was going to leave the company for a better position.
5. There are many buildings in the military area, such as public housing where soldiers' families live, a dormitory where student soldiers stay, a cafeteria where they eat their meals, and an armory where they keep weapons and
$\qquad$ _.
6. He had no $\qquad$ in saying that the man was guilty because he had seen the crime.
7. Some creams $\qquad$ your skin from the harmful effects of the sun.
8. $\qquad$ has been the main result of the recent worldwide financial crisis. Unfortunately, this means a lot people have lost their jobs.
9. Because his mother was angry with him for losing the money while going to the supermarket, the boy paid more attention to $\qquad$ the money securely.
10. They will have to $\qquad$ tomorrow's picnic because of the bad weather.
11. He wore a ghost mask for the party because people had to $\qquad$ themselves in order to get in. In other words, if they had come in casual clothes without costumes, they wouldn't have been allowed to join the party.
12. When you go hunting, you should take at least one weapon and a lot of
$\qquad$ because you can never be sure what will happen.
13. The little boy had $\qquad$ his mother's necklace so firmly that the pearls scattered, went in all directions, while his mother was trying to take it from his hand.
14. To make a delicious cake, the mixer should be on a low speed, and you should add the $\qquad$ , such as eggs, milk, sugar and flour into the mixing bowl slowly.
15. One of our neighbors said that her whole body $\qquad$ when she saw the burglar in her house last night.

## APPENDIX 3 (TOTAL RETENTION TEST)

## Vocabulary Total Retention Test

## A- Choose one of the options which makes each sentence meaningful.

1. The latest $\qquad$ in computer technology are amazing. Scientists can create robots which have human faces with mimes.
a) convictions
b) celebrities
c) contradictions
d) innovations
2. They had failed to take any $\qquad$ and last night there was another fatal accident.
a) hesitations
b) rostrums
c) precautions
d) fellows
3. She $\qquad$ around the cafe to see whether her friends had arrived before her or not.
a) consumed
b) detained
c) spread
d) glanced
4. Men become more depressed when they get $\qquad$ compared to women because men have more responsibility to support their families financially. Therefore, losing a job is more difficult for them.
a) redundancy
b) exponent
c) ammunition
d) settler
5. The young girl $\qquad$ the photos out of her father's hand before he had a chance to look at them. It was clear that she didn't want her father see the photographs of her with her boyfriend.
a) snatched
b) explored
c) stipulated
d) glanced
6. Today, it is Obrah's birthday, and we are celebrating it in our office. On the cake, we wrote, "You are the nicest $\qquad$ in this workplace." Everybody loves her as she is both hardworking and helpful.
a) issue
b) fellow
c) ammunition
d) truce
7. Years ago, black $\qquad$ were forced to work on farms to plant cotton in the southern United States.
a) innovations
b) ranchers
c) heirs
d) slaves
8. Although I knew that he would lie, I still asked whether he had stolen my money or not. He answered, "No" without $\qquad$ , and proved he was a good liar.
a) contagion
b) hesitation
c) award
d) ammunition
9. After asking me what seemed like millions of questions in half an hour, they finally said "OK. Thank you, we will not $\qquad$ you any further. You can now buy another thing from the store instead of this jumper."
a) release
b) detain
c) overcome
d) glance
10. These statuettes are a very important part of the cultural $\qquad$ of southern Turkey.
a) heritage
b) mystery
c) swarm
d) redundancy
11. Some people are not happy to be the $\qquad$ to a relative's fortune as they would lose their relative to receive the money.
a) ransom
b) heir
c) innovation
d) nutrition
12. While his teacher was announcing the final exam grades, it was very normal for John to $\qquad$ because he had to get at least 85 to pass the class.
a) conceal
b) correspond
c) blindfold
d) shiver
13. She was concentrating on her new project and the door bell $\qquad$ her.
a) startled
b) struggled
c) glanced
d) distinguished
14. Judy again asked me to lend her some money. Because she never pays it back, I $\qquad$ to give money to her.
a) disguised
b) grasped
c) manifested
d) refused
15. Neil Armstrong stepped onto the Moon in1969, which was the greatest
$\qquad$ of the twentieth century.
a) triumph
b) possession
c) conviction
d) revolt
16. One of Paul's friends arrived at his home wearing a ghost costume as a birthday surprise. However, the poor birthday boy didn't recognize him, and
$\qquad$ for a long time.
a) faced
b) disguised
c) retreated
d) shivered
17. When I $\qquad$ at the speed indicator of the car on the highway, I was shocked as it showed $210 \mathrm{~km} / \mathrm{h}$.
a) detained
b) invaded
c) demolished
d) glanced
18. After the operation, he tried to $\qquad$ his pain, but it was clear from his face that he was in a great pain.
a) grasp
b) subvert
c) conceal
d) complain
19. It's my personal $\qquad$ that all terrorists should be locked away for life.
a) conviction
b) triumph
c) pleasure
d) starvation
20. The Turkish War of Independence was fought with endless hopes and effort but with little $\qquad$ . Sometimes our brave soldiers ran after the enemy with guns not loaded with bullets or bombs.
a) poverty
b) ammunition
c) fellow
d) clearance
21. Would you $\qquad$ your job if you hit the jackpot on New Year's Eve?
a) glance
b) assume
c) quit
d) snatch
22. When she $\qquad$ the tea cup, she suddenly dropped it because it was extremely hot.
a) shivered
b) disappeared
c) trespassed
d) grasped
23. Is there any scientific $\qquad$ that a person's signature gives clues about his/her character?
a) evidence
b) precaution
c) innovation
d) triumph
24. She was really happy with her $\qquad$ because they were more than just friends she spent time at work with. They often had their lunch and dinner together. They also loved spending time together on the weekends.
a) redundancies
b) oaths
c) fellows
d) vacations
25. Many people believe that sooner or later the fight between good and evil will end in $\qquad$ for good.
a) vacation
b) heir
c) triumph
d) quest
26. Some animals change their skin color intuitively when they are in danger. In this way, they $\qquad$ themselves as protection against other wild animals.
a) disguise
b) shiver
c) resuscitate
d)explore
27. Joshua is a diabetic; in other words, his body cannot control the level of sugar in his blood. His disease $\qquad$ him from eating chocolate whenever he wants.
a) detain
b) snatches
c) prevents
d) cackles
28. Yesterday a man committed suicide and he left a note. In the note, he wrote ,"I cannot bear to look at my hungry children because I did my best keep my job but I think $\qquad$ is my destiny like many people in our society. It is impossible to find a secure job."
a) hesitation
b) dignity
c) redundancy
d) friendliness
29. If your bag is $\qquad$ from you, let it go. Don't run after the thief.
a) rejected
b) snatched
c) detained
d) deterred
30. Even if you think that your grandparents are wrong about their decision, you have to $\qquad$ their ideas.
a) oblige
b) respect
c) grasp
d) conceal

## Vocabulary Total Retention Test

## B- Fill in the blanks with suitable words to make each sentence meaningful. If it is possible, try to use the words you have learnt.

1. On the final exam, a student $\qquad$ at his friend's paper just for a second to see the answer of a question, but the teacher caught him.
2. There are many buildings in the military area, such as public housing where soldiers' families live, a dormitory where student soldiers stay, a cafeteria where they eat their meals, and an armory where they keep weapons and $\qquad$ .
3. They will have to $\qquad$ tomorrow's picnic because of the bad weather.
4. The little boy had $\qquad$ his mother's necklace so firmly that the pearls scattered, went in all directions, while his mother was trying to take it from his hand.
5. "Did I $\qquad$ you when I came in suddenly?", the boy asked the old woman who looked surprised and worried.
6. Pam, a lazy girl, asked Anna, one of her friends, to take her Maths examination for her because her friend was extremely good at Maths. Anna agreed and $\qquad$ herself by changing the color of her hair and wearing Pam's clothes.
7. The police $\qquad$ him for theft.
8. $\qquad$ has been the main result of the recent worldwide financial crisis. Unfortunately, this means a lot people have lost their jobs.
9. The thief had tried to $\qquad$ her purse when she was in Spain, but luckily she chased the thief away.
10. He decided to $\qquad$ the fact that he was going to take Fine Arts exam because his mother wanted him to be doctor.
11. While some dentists say that chocolate $\qquad$ teeth, others suggest that chocolate is not more harmful than other foods.
12. Although we had been $\qquad$ for more than 10 years and worked on many projects together, I was truly happy when he said he was going to leave the company for a better position.
13. The concert was a musical $\qquad$ . Audiences listened to the orchestra carefully and closely.
14. To make a delicious cake, the mixer should be on a low speed, and you should add the $\qquad$ , such as eggs, milk, sugar and flour into the mixing bowl slowly.
15. Whenever I invited her for lunch, she $\qquad$ at her watch, and told me she had a class in ten minutes.
16. He wore a ghost mask for the party because people had to $\qquad$ themselves in order to get in. In other words, if they had come in casual clothes without costumes, they wouldn't have been allowed to join the party.
17. The government gave him a $\$ 75.000$ $\qquad$ for his help to the police to arrest the murderer.
18. One of our neighbors said that her whole body $\qquad$ when she saw the burglar in her house last night.
19. After grading students' exam papers, the teacher gave them to her students so that they could see their mistakes. Because Judy took a very poor grade, she wanted to $\qquad$ the paper from the teacher's hand as soon as she heard her name. Maybe she did not want the others to see her paper.
20. Because his mother was angry with him for losing the money while going to the supermarket, the boy paid more attention to $\qquad$ the money firmly.
21. The cell phone is an $\qquad$ which has spread rapidly since the day it was invented.
22. The habit of eating too many sweet foods and drinking acidic drinks cause tooth $\qquad$ .
23. The staff at the store had to $\qquad$ the shoplifter until the police arrived.
24. He had no $\qquad$ in saying that the man was guilty because he had seen the crime.
25. His political $\qquad$ didn't allow him to buy some certain products.
26. When you go hunting, you should take at least one weapon and a lot of
$\qquad$ because you can never be sure what will happen.
27. Ashley believes that she has the control of her $\qquad$ . She thinks she can choose where and what she is going to be, and change the way of her life.
28. Despite having a large family, they still had no son and $\qquad$ to their respectful company.
29. His admissions about his mysterious past $\qquad$ everyone in the room. They all sat in silence without showing any reaction for a long time.
30. Some creams $\qquad$ your skin from the harmful effects of the sun.

## APPENDIX-4

Table 1. ANOVA Results for the Receptive Part of the Pre-test for Word Set I

| Source of <br> Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between groups | 0.073 | 3 | 0.024 | 0.052 | 0.984 |
| Within groups | 57,108 | 123 | 0.464 |  |  |
| Total | 57,181 | 126 |  |  |  |

Table 2. ANOVA Results for the Receptive Part of the Pre-test for Word Set II

| Source of <br> Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between groups | 0.957 | 3 | 0.319 | 0.664 | 0.576 |
| Within groups | 54.290 | 113 | 0.40 |  |  |
| Total | 55.248 | 116 |  |  |  |

Table 3. ANOVA Results for the Productive Part of the Pre-test for Word Set I

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between groups | 0.022 | 3 | 0.007 | 0.948 | 0.420 |
| Within groups | 0.970 | 123 | 0.008 |  |  |
| Total | 0.992 | 126 |  |  |  |

Table 4. One Way ANOVA for Repeated Measures Results for the Receptive Task
Group in the Receptive Parts of the Tests for Word Set I.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 63,073 | 31 | 2,035 |  |  |
| Test | 1725,521 | 2 | 862,760 | 349,295 | 0,000 |
| Error | 153,146 | 62 | 2,470 |  |  |
| Total | 1941,740 | 95 |  |  |  |

Table 5. One Way ANOVA for Repeated Measures Results for the Receptive Task
Group in the Receptive Parts of the Tests for Word Set II.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 72,989 | 29 | 2,517 |  |  |
| Test | 1695,489 | 2 | 847,744 | 447,595 | 0,000 |
| Error | 109,844 | 58 | 1,894 |  |  |
| Total | 1878,322 | 89 |  |  |  |

Table 6. One Way ANOVA for Repeated Measures Results for the Receptive Task
Group in the Productive Parts of the Tests for Word Set I.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 172,667 | 31 | 5,570 |  |  |
| Time | 1012,333 | 2 | 506,167 | 126,383 | 0,000 |
| Error | 248,333 | 62 | 4,005 |  |  |
| Total | 1433,333 | 95 |  |  |  |

Table 7. One Way ANOVA for Repeated Measures Results for the Receptive Task Group in the Productive Parts of the Tests for Word Set II.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | $\mathbf{F}$ | $\mathbf{p}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 160,622 | 29 | 5,539 |  |  |
| Time | 853,956 | 2 | 426,978 | 116,788 | 0,000 |
| Error | 212,044 | 58 | 3,656 |  |  |
| Total | 1226,622 | 89 |  |  |  |

Table 8. One Way ANOVA for Repeated Measures Results for the Productive Task Group in the Receptive Parts of the Tests for Word Set I.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 86,727 | 32 | 2,710 |  |  |
| Time | 1522,242 | 2 | 761,121 | 338,878 | 0,000 |
| Error | 143,758 | 64 | 2,246 |  |  |
| Total | 1752,727 | 98 |  |  |  |

Table 9. One Way ANOVA for Repeated Measures Results for the Productive
Task Group in the Receptive Parts of the Tests for Word Set II.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 76,323 | 32 | 2,385 |  |  |
| Time | 1590,929 | 2 | 795,465 | 344,65 | 0,000 |
| Error | 147,737 | 64 | 2,308 | 5 |  |
| Total | 1814,990 | 98 |  |  |  |

Table 10. One Way ANOVA for Repeated Measures Results for the Productive
Task Group in the Productive Parts of the Tests for Word Set I.

| Source of <br> Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 65,394 | 32 | 2,044 |  |  |
| Time | 1361,152 | 2 | 680,576 | 395,224 | 0,000 |
| Error | 110,182 | 64 | 1,722 |  |  |
| Total | 1536,727 | 98 |  |  |  |

Table 11. One Way ANOVA for Repeated Measures Results for the Productive Task Group in the Productive Parts of the Tests for Word Set II.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 88,505 | 32 | 2,766 |  |  |
| Time | 1260,990 | 2 | 630,495 | 198,891 | 0,000 |
| Error | 203,010 | 64 | 3,172 |  |  |
| Total | 1552,505 | 98 |  |  |  |

Table 12. One Way ANOVA for Repeated Measures Results for the Mixed Task Group in the Receptive Parts of the Tests for Word Set I.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 71,778 | 32 | 2,243 |  |  |
| Time | 1729,838 | 2 | 864,919 | 668,407 | 0,000 |
| Error | 82,828 | 64 | 1,294 |  |  |
| Total | 1884,444 | 98 |  |  |  |

Table 13. One Way ANOVA for Repeated Measures Results for the Mixed Task Group in the Receptive Parts of the Tests for Word Set II.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 84,000 | 31 | 2,710 |  |  |
| Time | 1734,771 | 2 | 867,385 | 635,912 | 0,000 |
| Error | 84,563 | 62 | 1,364 |  |  |
| Total | 1903,333 | 98 |  |  |  |

Table 14. One Way ANOVA for Repeated Measures Results for the Mixed Task Group in the Productive Parts of the Tests for Word Set I.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 96,626 | 32 | 3,020 |  |  |
| Time | 1389,475 | 2 | 694,737 | 275,798 | 0,000 |
| Error | 161,192 | 64 | 2,519 |  |  |
| Total | 1647,293 | 98 |  |  |  |

Table 15. One Way ANOVA for Repeated Measures Results for the Mixed Task Group in the Productive Parts of the Tests for Word Set II.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | $\mathbf{F}$ | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 107,167 | 31 | 3,457 |  |  |
| Time | 1242,646 | 2 | 621,323 | 310,661 | 0,000 |
| Error | 124,021 | 62 | 2,000 |  |  |
| Total | 1473,833 | 95 |  |  |  |

Table 16. One Way ANOVA for Repeated Measures Results for the Control Group in the Receptive Parts of the Tests for Word Set I.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 167,563 | 28 | 5,984 |  |  |
| Time | 816,161 | 2 | 408,080 | 79,765 | 0,000 |
| Error | 286,506 | 56 | 5,116 |  |  |
| Total | 1270,23 | 86 |  |  |  |

Table 17. One Way ANOVA for Repeated Measures Results for the Control Group in the Receptive Parts of the Tests for Word Set II.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 182,197 | 21 | 8,676 |  |  |
| Time | 699,636 | 2 | 349,818 | 109,445 | 0,000 |
| Error | 153,030 | 42 | 3,644 |  |  |
| Total |  | 86 |  |  |  |

Table 18. One Way ANOVA for Repeated Measures Results for the Control Group in the Productive Parts of the Tests for Word Set I.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 168,345 | 28 | 92,530 |  |  |
| Time | 311,540 | 2 | 155,770 | 30,311 | 0,000 |
| Error | 287,793 | 56 | 5,139 |  |  |
| Total | 767,678 | 86 |  |  |  |

Table 19. One Way ANOVA for Repeated Measures Results for the Control Group in the Productive Parts of the Tests for Word Set II.

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Within groups | 154,606 | 21 | 7,362 |  |  |
| Time | 296,848 | 2 | 148,424 | 34,541 | 0,000 |
| Error | 180,485 | 42 | 4,297 |  |  |
| Total | 631,939 | 65 |  |  |  |

Table 20. Two way ANOVA for Mixed Measures Results for All Groups in Receptive Parts of the Pre, Immediate and Delayed Post Tests for Word Set I

| Source of Variance | Sum of <br> squares | df (degree <br> of freedom) | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between subjects | 603,46 | 126 |  |  |  |
| Groups | 213,730 | 3 | 71,243 | 22,51 | 0.00 |
| Error | 389,730 | 123 | 3,164 |  |  |
| Within subjects | 6375,53 | 254 |  |  |  |
| Time(pre-test, | 5549,299 | 2 | 2774,649 | 1024,50 | 0.00 |
| immediate, delayed) | 159,994 | 6 | 26,666 | 9,846 | 0.00 |
| Group*Time | 666,237 | 246 | 2.708 |  |  |
| Error | 6978,99 | 380 |  |  |  |
| Total |  |  |  |  |  |

Table 21. Two way ANOVA for Mixed Measures Results for All Groups in Receptive Parts of the Pre, Immediate and Delayed Post Tests for Word Set II

| Source of Variance | Sum of <br> squares | df (degree <br> of freedom) | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between subjects | 525.972 | 116 |  |  |  |
| Groups | 96.868 | 3 | 32.289 | 8,503 | 0.00 |
| Error | 429.104 | 113 | 3,797 |  |  |
| Within subjects | 5983,286 | 234 |  |  |  |
| Time(pre-test, | 5380,249 | 2 | 2690,124 | 1195,971 | 0.00 |
| immediate, delayed) | 94,690 | 6 | 15,782 | 7,016 | 0.00 |
| Group*Time | 508,347 | 226 | 2.249 |  |  |
| Error | 6509,258 | 350 |  |  |  |
| Total |  |  |  |  |  |

Table 22. Two way ANOVA for Mixed Measures Results for All Groups in Productive Parts of the Pre, Immediate and Delayed Post Tests for Word Set I

| Source of Variance | Sum of <br> squares | df (degree <br> of freedom) | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between subjects | 948,352 | 126 |  |  |  |
| Groups | 445,320 | 3 | 148,440 | 36,296 | 0.00 |
| Error | 503,032 | 123 | 4.090 |  |  |
| Within subjects | 4776,828 | 254 |  |  |  |
| Time(pre-test, | 3732,377 | 2 | 1866,189 | 568,523 | 0.00 |
| immediate, delayed) | 236,951 | 6 | 39,492 | 12.031 | 0.00 |
| Group*Time | 807,500 | 246 | 3.283 |  |  |
| Between subjects | 5725,18 | 380 |  |  |  |
| Total |  |  |  |  |  |

Table 23. Two Way ANOVA for repeated Measures Results for All Groups in Productive Parts of the Pre, Immediate and Delayed Post Tests for Word Set II

| Source of Variance | Sum of <br> squares | df (degree <br> of <br> freedom) | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between subjects | 769,743 | 116 |  |  |  |
| Groups | 251,161 | 3 | 83,720 | 18,243 | 0.00 |
| Error | 518,582 | 113 | 4.589 |  |  |
| Within subjects | 4131,021 | 234 |  |  |  |
| Time(pre-test, | 3245,499 | 2 | 1622,750 | 503,863 | 0.00 |
| immediate, delayed) | 157,662 | 6 | 26,277 | 8,159 | 0.00 |
| Group*Time | 727,860 | 226 | 3.221 |  |  |
| Between subjects | 4900,764 | 350 |  |  |  |
| Total |  |  |  |  |  |

Table 24. ANOVA Results in the Receptive Part of the Total Retention Test

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between groups | 672,784 | 3 | 224,261 | 18,030 | 0,000 |
| Within groups | 1393,078 | 112 | 12,438 |  |  |
| Total | 2065,862 | 115 |  |  |  |

Table 25. ANOVA Results in the Productive Part of the Total Retention Test

| Source of Variance | Sum of Squares | Degree of <br> Freedom | Mean <br> Square | F | p |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between groups | 2217,956 | 3 | 739,319 | 55,892 | 0,000 |
| Within groups | 1481,492 | 112 | 13,228 |  |  |
| Total | 3699,448 | 115 |  |  |  |


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