

**T.C.
İSTANBUL UNIVERSITY
THE GRADUATE SCHOOL OF EDUCATIONAL SCIENCES**

THESIS

**A QUALITATIVE AND QUANTITATIVE ANALYSIS OF VOCABULARY IN ENGLISH
COURSE BOOKS IN TERMS OF RECYCLING, TYPES OF REPETITION AND
REQUIRED LEARNING CONDITIONS**

BY

HABİBE BAKKAL

THE TRANSFERRED STUDENT IN MASTER OF ARTS

FROM CLOSED FATİH UNIVERSITY

**DEPARTMENT OF FOREIGN LANGUAGES EDUCATION
ENGLISH LANGUAGE TEACHING**

ASSOC.PROF.DR. CEMAL KARAATA

THESIS SUPERVISOR

İSTANBUL-2016



**T.C.
İSTANBUL UNIVERSITY
THE GRADUATE SCHOOL OF
EDUCATIONAL SCIENCES**



THESIS

**A QUALITATIVE AND QUANTITATIVE ANALYSIS OF VOCABULARY IN ENGLISH
COURSE BOOKS IN TERMS OF RECYCLING, TYPES OF REPETITION AND
REQUIRED LEARNING CONDITIONS**

BY

HABİBE BAKKAL

THE TRANSFERRED STUDENT IN MASTER OF ARTS

FROM CLOSED FATİH UNIVERSITY

**DEPARTMENT OF FOREIGN LANGUAGES EDUCATION
ENGLISH LANGUAGE TEACHING**

ASSOC.PROF.DR. CEMAL KARAATA

THESIS SUPERVISOR

İSTANBUL-2016

3110160136 öğrenci numaralı Habibe BAKKAL tarafından hazırlanan bu çalışma 15/06/2016 tarihinde aşağıdaki jüri tarafından Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi programında yüksek lisans tezi olarak kabul edilmiştir.

Tez Jürisi

Doç.Dr. Cemal KARAATA
Fatih Üniversitesi
Eğitim Fakültesi

Doç.Dr. Carol GRIFFITHS
Fatih Üniversitesi
Eğitim Fakültesi

Yrd. Doç.Dr. Aybars ERÖZDEN
Okan Üniversitesi
Eğitim Fakültesi

ACKNOWLEDGMENTS

I would like to express my sincere thanks to many people for their encouragement and assistance in achieving to complete my thesis. First and foremost, I would like to thank Assoc. Prof. Dr. Cemal KARAATA, my advisor, for his dedication, guidance and great support during my research study. He has always been an incredible mentor throughout this hard and long process. I am grateful to Assoc. Prof. Dr. Yakup ÇETİN, our head of the department for his support during and after his courses and to my professor, Assoc. Prof. Dr. Carol GRIFFITHS, for her contributions during my graduate degree. I also would like to thank Assist. Prof. Dr. Serpil KILIÇ for her constructive comments and suggestions.

My special thanks are to my dear husband, İlker for his endless patience and everlasting encouragement. As a person who is always with me, he has helped me to overcome the difficulties which I experienced. My thanks go to my wonderful family, especially my mother and father who encouraged me a lot. Although they were away, they strengthened me with their precious prayers. I am also thankful to my colleague and friend Yasemin Gedik Topuz for her companionship. I appreciate my colleagues who supported me with their sincere wishes and making things easier for me in our English department.

ABSTRACT

A QUALITATIVE AND QUANTITATIVE ANALYSIS OF VOCABULARY IN ENGLISH COURSE BOOKS IN TERMS OF RECYCLING, TYPES OF REPETITION AND REQUIRED LEARNING CONDITIONS

Vocabulary learning is one of the most integral parts of Second Language Acquisition (SLA). However, research studies which thoroughly investigate the effectiveness of course books, which are the most common language learning materials in SLA classrooms, are scarce. The purpose of the present study is to examine the use of recycling in the target vocabulary items and to evaluate the quality of vocabulary recycling in English course books. It also aims to identify the types of repetitions used in vocabulary and to investigate to what extent learning conditions for vocabulary acquisition are provided in intermediate level English course books. To achieve these purposes, three English course books by different publishing companies were analyzed with a content analysis technique. The study included 505 words from the three selected course books in total while 270 of them were examined in more details for further investigation. The results indicated that the selected course books contained partial vocabulary recycling. Furthermore, significant differences were found among the three course books in terms of the recycling of words. Based on the types of repetition, it was found that spaced repetition was used slightly more than massed repetition in the selected textbooks. When required learning conditions were examined under three categories of noticing, retrieval and generation, the results revealed that although the course books provided good opportunities for the noticing of words, they needed to be enhanced in terms of retrieval and generative use for vocabulary acquisition.

Key Words: Course Books, Vocabulary Recycling, Spaced vs. Massed Repetition, Learning Conditions

KISA ÖZET

İNGİLİZCE DERS KİTAPLARINDAKİ KELİMELERİN TEKRAR SIKLIĞI, TEKRAR TÜRLERİ VE GEREKLİ ÖĞRENİM KOŞULLARI AÇISINDAN NİTEL VE NİCEL ANALİZİ

Kelime öğrenimi, ikinci dil ediniminin en ayrılmaz parçalarından biridir. Fakat ikinci dil edinimi sınıflarında en yaygın dil öğrenim materyalleri olan ders kitaplarının kelime öğrenimi bakımından etkinliğini derinlemesine araştıran az çalışma bulunmaktadır. Bu çalışmanın amacı İngilizce ders kitaplarında bulunan kelime tekrarlarını incelemek ve bu kelime tekrarlarının kalitesini değerlendirmektir. Ayrıca çalışma, kelime alıştırmalarındaki tekrarların türünü tespit etmeyi ve orta seviyedeki İngilizce ders kitaplarının kelime edinimi için öğrenme koşullarını ne derecede sağlandığını incelemeyi de amaçlamaktadır. Bu amaçları gerçekleştirmek için farklı yayınevlerinden orta seviyedeki üç İngilizce ders kitabı içerik analizi tekniği ile analiz edilmiştir. Çalışma seçilen üç kitaptan toplam 505 kelimeyi içerirken bunlardan 270'i ileri araştırmalar için daha ayrıntılı bir şekilde incelenmiştir. Sonuçlar, seçilen ders kitaplarının kısmi kelime tekrarı içerdiğini göstermiştir. Ayrıca, kelime tekrarı açısından üç ders kitabı arasında anlamlı farklılıklar bulunmuştur. Kelime tekrar türleri açısından ise, seçilen kitapların aralıklı tekrar türünü toplu tekrarlara göre biraz daha fazla kullandığı tespit edilmiştir. Öğrenme koşulları; farkındalık, geri çağırım ve yeni ortamlarda kullanım kategorilerinde incelendiğinde, sonuçlar ders kitaplarının fark etme koşulu için iyi fırsatlar sağlamasına rağmen geri çağırım ve yeni ortamlarda kullanım bakımından geliştirilmesi gerektiğini ortaya çıkarmıştır.

Anahtar Kelimeler: Ders Kitapları, Kelime Tekrarı, Aralıklı ve Toplu Tekrar, Öğrenme Koşulları

TABLE OF CONTENTS

ACKNOWLEDGMENTS	iii
ABSTRACT	iv
KISA ÖZET	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
CHAPTER I INTRODUCTION	1
1.1. Introduction	1
1.2. Purpose of the Study.....	4
1.3. Research Questions	4
1.4. Contributions of the Study	4
CHAPTER II LITERATURE REVIEW	6
2.1. Vocabulary Teaching and Course Books	6
2.2. The Role of Memory and Recycling	10
2.3. What Does It Mean “To Know a Word”?	13
2.4. Types of Repetitions in Vocabulary Learning.....	16
2.5. Pimsleur’s Memory Theory.....	19
2.6. Psychological Learning Conditions.....	21
2.6.1. Noticing	22
2.6.2. Retrieval.....	24
2.6.3. Generation (Generative or Creative Use)	26
2.7. Significance of the Study	29
CHAPTER III METHODOLOGY	31
3.1. Selection of the Course Books	31
3.2. Selection of the Words	32
3.3. Data Collection Procedure.....	33
3.4. Labeling the Learning Conditions	37
3.5. Materials	38
3.6. Data Analysis	40
3.7. Discussion of Reliability and Validity	42
CHAPTER IV RESULTS	43
4.1. Research Question 1	43
4.2. Research Question 2	47

4.3. Research Question 3	48
CHAPTER V DISCUSSION.....	53
5.1. Research Question 1	53
5.1.1. Overall vocabulary recycling in the selected course books	54
5.1.2. Comparison of vocabulary recycling among the course books	56
5.1.3. Comparison of vocabulary recycling between SB and WB within each course book.....	57
5.2. Research Question 2	58
5.2.1. Comparison of spaced and massed repetition in each course book	58
5.2.2. Comparison of the course books in terms of spaced and massed repetition based on their distribution rate.....	59
5.3. Research Question 3	60
5.3.1. Use of the required learning conditions within each course book	60
5.3.2. Comparison of the course books based on each required learning condition	63
CHAPTER VI CONCLUSION.....	67
6.1. Conclusion.....	67
6.2. A Suggested Framework for Vocabulary Learning Through Course Books ..	70
6.3. Limitations of the Current Study and Recommendations for Future Research	73
REFERENCES	76
APPENDICES	81
Appendix 1	81
Appendix 2	83
Appendix 3	85
CV.....	87

LIST OF TABLES

Table 4-1: Frequency of Repetition and the Number of Repeated Words Across the Three Course Books	44
Table 4-2: One-Way ANOVA Test Results for the Comparison of Recycling Across the Three Course Books.....	45
Table 4-3: The Results of Tukey HSD Multi-Comparison Test for the Recycling Differences Between the Course Books	46
Table 4- 4: Paired Sample t-test Results for the Repetition Comparison Between Student's Book and Workbook of Each Course Book	46
Table 4-5: Paired Sample t-test Results for the Comparison of Spaced and Massed Repetition for Each Course Book	47
Table 4-6: The Results of Chi-Square Goodness of Fit Test for the Comparisons Across the Course Books.....	48
Table 4-7: Paired Sample t-test Results for the Comparison of Learning Conditions for Each Course Book.....	49
Table 4-8: One-Way ANOVA Test Results for the Comparison of the Three Course Books in terms of Learning Conditions.....	51
Table 4-9: The Results of Tukey HSD Multi-Comparison Test for the Learning Conditions Differences Between the Course Books.....	52

CHAPTER I INTRODUCTION

1.1. Introduction

Course books have always been the most common teaching materials in English as a Foreign Language (EFL) classrooms for every skill including vocabulary which is one of the most fundamental issues in the field of English Language Teaching (ELT). They provide learners with an opportunity to present new vocabulary in an integrative way with four language skills as well as specific vocabulary sections. Although teachers have started to use course books as a set which comprises of a student's book, a workbook, CDs, teacher's book and iTTools in recent years, it is still more common to see a Student's Book (SB) and Workbook (WB) in language classrooms as the main materials used in classes. Although course books are seen as a core component of language materials, it is not adequate to have any course book for vocabulary acquisition. Since there are many available options in the market, it is also crucial to select high quality of course books among them.

Due to their importance in terms of language learning, textbooks have attracted many researchers' attention. This interest for textbooks has not diminished in years; however, the focus of studies has recently shifted from more general to specific. In other words, whereas many previous studies which were conducted on the relationship between the textbooks and vocabulary acquisition were related to more general issues, recent studies have started to focus on more specific topics. To illustrate, some of the previous studies on textbooks focused on the place of vocabulary in course books (Sinclair & Renouf, 1988; O'Dell, 1997) while some others touched upon the quantitative matters such as the number of the words and vocabulary range (Meunier & Gouverneur, 2009). However, recently, more specific research studies have been conducted on different aspects of words throughout textbooks (Brown, 2010).

A prerequisite for good quality of course books and their efficiency in terms of vocabulary teaching is the recycling of words in units and throughout the whole textbook. Recycling is an important criterion for vocabulary acquisition since learners need more than one encounter to be able to learn a new word. In other

words, repeated exposure to the target vocabulary is an essential condition for learning (Nation, 2007; Schmitt, 2000). Since there are many aspects to be learned about each vocabulary item, each meeting may create an opportunity to deal with these aspects. With respect to recycling, researchers compromise on the necessity of repetitions of words; however, they differ in the adequate number of repetition for the acquisition of a word (Waring, 2003; Webb, 2007). To practice the new vocabulary items in course books, it is a widespread technique to supply learners with a variety of exercises immediately after the introduction of new words in both SBs and WBs. Although some experimental research was carried out on the effectiveness of repetition in learning sessions (Rott, 1999; Peters, 2014), research studies on recycling of words in the content of a textbook and its efficiency in terms of vocabulary acquisition is rare.

Another crucial criterion for good quality textbooks is the nature of the repetition. For vocabulary learning, it is not sufficient to repeat the new words in a certain amount. As well as quantity, the quality of the repetition is another significant issue. That is, not only how many times a word is repeated but also how it is repeated is crucial. In terms of its nature, repetition was classified as massed or spaced repetition and the effectiveness of these two types were discussed by many researchers (Matsuoka & Hirsh, 2010; Alfaki, 2015; Schutze, 2015). Despite the lack of studies specifically designed on English textbooks, many studies focused on the comparison of massed repetition and spaced repetition not only in ELT (Matsuoka & Hirsh, 2010; Alfaki, 2015; Schutze, 2015) but also in different educational fields such as Maths and Psychology (Gorgievski, 2011; Ebbinghaus, 1885,1913; Pimsleur 1967; Maddox, 2013). The first studies on the spacing effects were carried out on memory towards the end of nineteenth century by Ebbinghaus (1885) and in experimental studies many different memory tasks, materials and participants were examined. Starting from the first studies on spacing effect, most research focused on its influence in experimental learning settings. Therefore, to the researcher's knowledge, comprehensive research on the content of English language course books is very limited in number with this regard.

As in other types of learning, some conditions which make learning more effective and long lasting are necessary for vocabulary learning as well. However, it

is more essential to provide good opportunities for language learners to acquire the new vocabulary items in EFL context since it is usually the only place for them to be exposed to their second or foreign language. Therefore, in this limited exposure time, favorable learning conditions should be created so that learners can get the most out of this exposure. These required conditions for language acquisition are classified into three groups by Nation (2007, p.63) as noticing, retrieval and generative use. According to him, the first step of vocabulary learning is to notice a word. Noticing means giving attention to an item and realizing that it is an important part of language. It can be influenced by some factors such as the salience of the word in textual input, learners' prior encounter with the word and their realization that the word bridges a gap in their vocabulary knowledge. For example, frequent use of the same word in a text or on a page makes this word salient for learners and this will help them to notice that lexical item. Likewise, if learners meet a word they met before, they will probably think "I have seen this word before" and that item probably will draw their attention. Retrieval, which is the second phase in learning, is to remember a word which has been encountered before. The third and the last process is generative use or creative use. It occurs when a word is used or encountered in a different way from the previous meeting with the word. Despite its significance, learning conditions got little attention in ELT. To the researcher's knowledge, noticing, retrieval or generative use have not been examined separately or altogether in ELT. Especially, as it is also stated by Nation (2007, p.73) no studies have been conducted on the degree of generative use specifically in long texts such as simplified readers or course books.

In the light of the points discussed above, the present study focuses on the role of textbooks in language classrooms with respect to vocabulary learning and it investigates their efficiency on the basis of vocabulary recycling. In addition, it differentiates between two types of repetitions (massed or spaced) and examines their usage in the selected course books. Lastly, the three required learning conditions are investigated and categorized. In this way, the researcher aims to fill a gap in the literature in terms of the effectiveness of three important qualities of course books (recycling, types of repetitions and the required learning conditions) by designing a content analysis on three intermediate level English textbooks.

1.2. Purpose of the Study

The primary purpose of this study is to analyze the use of recycling in the target vocabulary items and to evaluate the quality of vocabulary recycling, identify the types of repetitions used in vocabulary and lastly investigate to what extent the required learning conditions for vocabulary acquisition are provided in intermediate level English course books. Furthermore, the study aims to explore the use of vocabulary in intermediate English course books by comparing three different publishing companies, identify the main problems in recycling types and necessary learning conditions and finally suggest solutions to the identified problems.

1.3. Research Questions

The study was conducted to investigate the following questions below:

- 1) Do the selected intermediate course books supply recycling of target words at a threshold level to promote vocabulary learning?
- 2) What types of repetition (spaced or massed) are used in the selected course books for recycling of vocabulary?
- 3) To what extent do the selected course books provide three necessary learning conditions (noticing, retrieval and generative use) to promote vocabulary learning?

1.4. Contributions of the Study

As well as targeting to fill a gap in the literature on three important qualities of course books (recycling, types of repetitions and required learning conditions) for vocabulary learning by conducting a comprehensive study which gathers all these three aspects together, in the light of the research questions above, the present study aims to contribute

- To explore the use of vocabulary and to find out the amount of the most frequent 2000 words in the selected intermediate course books
- To report the use of recycling by examining three different textbooks in intermediate level
- To identify and compare the types of repetition in vocabulary items in the selected course books

- To identify the problems in the repetitions in terms of quantity and quality
- To explore to what degree the required learning conditions are provided in the textbooks by different publishing companies
- To investigate the problems in the psychological learning conditions and to discuss possible reasons
- To present a model for vocabulary learning in intermediate English course books by suggesting some solutions to the identified problems.



CHAPTER II LITERATURE REVIEW

Vocabulary acquisition is one of the integral parts of the language learning process in the field of ELT. Therefore, many vocabulary studies which focus on different aspects of vocabulary learning have been carried out in this area. While some of them have dealt with the strategies to improve vocabulary knowledge and increase learning efficiency (Porte, 1988; Fan, 2003; Zhang & Lu, 2015), others have examined vocabulary presentation techniques (Chen, 2014) and types of vocabulary exercises (Paribakht & Wesche, 1997; Folse, 2006). There have also been some other studies which have investigated the relationship between vocabulary knowledge and the four main language skills (Schmitt, Jiang & Grabe, 2011; Laufer, 2003; Olinghouse & Wilson, 2013).

This chapter consists of five main sections with respect to the purposes of the study. In the first section, it will focus on the previous studies which have investigated the relationship between vocabulary teaching and course books. The second section will review the studies on the influences of recycling and repetition in vocabulary teaching. Next, the types of repetition in terms of distribution –spaced and massed– will be explained and their effectiveness will be compared in the light of past studies. Pimsleur’s Memory Theory (1967), which addresses one of the research questions, will be explained briefly in the fourth section along with its relation to the study. Finally, in the last section, some key definitions about the psychological learning conditions will be described and some studies on required learning conditions will be reviewed.

2.1. Vocabulary Teaching and Course Books

For language learners, various materials are available not only for teaching English in general but also teaching vocabulary specifically. Since there is a variety of vocabulary resources which support learners directly or indirectly (such as readers and dictionaries), the choice of the materials to be used depend on the learner’s age, learning goals and the setting. However, course books which combine the four skills of language with vocabulary are one of the most preferred materials in language classrooms. Richards rightfully (2001, p.254) claims that commercial textbooks are perhaps the commonest form of teaching materials in language teaching.

When the course books are examined, it is not rare to see that almost all of them have vocabulary sections. Therefore, it is crucial to evaluate the necessity of a course book briefly in terms of both language teaching in general and vocabulary acquisition in particular. McDonough and Shaw (2003, p.47) claim that it is a concern for many current course books to set a principled framework and create contexts where vocabulary teaching can occur. They also argue that textbooks attempt to provide mechanisms in which people learn and recall words.

Course books are good resources for novice teachers because they supply them with a certain syllabus and guide them with prepared lesson plans. They are also valuable sources for experienced teachers who have a heavy schedule at school. With regard to course books, Lewis (1993, p.182) argues that all course books supply four things: program, sequence, balance and authority. He discusses learners may need the reassurance of a program and the achievement of a goal. He also adds that without a textbook, it may not be possible for teachers to prepare many individual lessons if they have a busy schedule and even if they can prepare, it is nearly impossible to ensure an effective sequencing and balance. Finally, he emphasizes that textbooks are beneficial in that they contain different types of materials such as texts, examples, activities, exercises and learning training.

With respect to lexical syllabus in textbooks, on the other hand, the overuse or misuse of course books may bring some drawbacks as well. If teachers stick to them excessively and do not enrich the content, the lessons may be too boring for the students or the teacher may lose their creativity in lesson planning. It may be even worse if the selected course book is not a quality one. Despite the widespread use of course books in language classrooms, due to the existence of their both advantages and disadvantages, there has been a debate regarding their necessity for language teaching. However, rather than discussing whether it is necessary to use a course book or not, many authors focus on not only benefits but also drawbacks and they give the freedom to decide on this issue to teachers. Bell and Gower (2009, p.116) underline the polarization between the proponents and the opponents of course book using. According to them, the supporters of course books point out that they provide teachers and learners with a variety of professionally developed materials which have tried-and-tested syllabus structures and facilitate teachers to spend their time more on

promoting learning than material production. On the contrary, they state that those who object to textbooks advocate that some course books have poor quality since they are published too quickly with too little piloting or they cannot meet learners' needs because they do not reflect what is known about language learning.

Vocabulary learning or teaching through a course book is a widespread technique used by many teachers or learners. This is already known by the publishing companies since they produce many textbooks that focus considerably on vocabulary. It is easy enough to look through the pages of any course book to find out how much attention is given to vocabulary in them. It is very usual to see many bold or highlighted items in reading passages or vocabulary exercises right after the reading text. It can be observed that course books also have specific vocabulary parts as "key phrases" before or after listening and speaking sections. Cunningsworth (cited in Richards 2001, p.251) points out the roles of course books in language teaching in general rather than focusing on only vocabulary. He suggests that textbooks can be used as a resource for the presentation of spoken or written materials and as a reference source for learners on grammar, *vocabulary* and pronunciation.

Since there are many available options for course books in the market, it is vital for teachers to choose the most effective and appropriate one in terms of teaching goals. The selection of course books and their quality have been an interest area for not only teachers but also researchers. Some studies have been carried out on textbooks using the content analysis technique. Henriques (2009) carried out a study in which he made an analysis and evaluation on Angola Secondary School EFL course books based on the theories of foreign language curriculum and investigated to what extent those textbooks were able to facilitate teachers to teach English effectively. During the analysis, reading passages, comprehension questions, grammar points and vocabulary exercises were examined with regard to the content and the format. The data for the study was collected using a checklist which was applied to the course books. The results indicate that the textbooks that were included in the study were found to accomplish the goals determined by the Angolan Institute for the Development of Education.

Campbell et al. (1996) examined and evaluated thirteen secondary course books from 4 different book series ranging from starter to upper-intermediate. Seven Estonian teachers and a British Council ELT Consultant participated in this study as reviewers. The teachers were all experienced secondary teachers who also worked as a teacher trainer or gave courses for teachers of English. During the study, the reviewers did not use a specific check list or an evaluation tool while analyzing the course book. Rather, the consultant provided them with a list of questions prepared by another group of teachers in a textbook evaluation session and they were informed that they could use that list of questions as the basis for their analysis of the course books) or they could touch upon other aspects of the course books as well. All of the teachers examined the books and they also used them in their teaching as a trial. After the teachers' individual analysis and use of the course books in their classes, they came together to discuss and to read each other's comments and contributions. In this review article, they wrote a conclusion on each course book specifically without sticking to a certain evaluation framework. Among the thirteen books, only one of them was evaluated under certain subcategories and one of these categories was vocabulary. The reviewers noticed that the textbooks included some aspects of the words such as collocations and connotation of the words in addition to their meanings. Moreover, they observed that some of the vocabulary exercises were very effective and the course book supplied recycling of the newly learned vocabulary items.

In addition to language teaching in general through course books, some comprehensive studies which specifically focus on vocabulary acquisition were also conducted. In a content analysis study on textbooks, Brown (2010) analyzed nine course books which ranged from beginner to intermediate by different publishing houses with respect to aspects of a word. He investigated whether the course books focused on different aspects of a word or if they taught just one aspect, which was usually its meaning. He suggested that textbooks should give enough importance to the recycling of words to foster the aspects of a word. Out of 9 different aspects he investigated, he found that only three aspects (spoken form, meaning, grammatical functions) were commonly used across all of the books.

To improve incidental vocabulary acquisition with the use of textbooks, Matsuoka and Hirsh (2010) propose that two relevant features of vocabulary occurrence in texts can be focused on and state that the first feature is recycling and the second feature is spaced repetition. In their study, they examined an upper-intermediate course book which involved short reading passages, grammar, vocabulary and different language skills across 12 units. All of the words in each unit of SB were analyzed and in this way, the study included 44,887 running words. To find out the demands of reading an ELT course book, text coverage for the first and the second 1,000 most common words list was examined. To explore the opportunities provided by the textbook, repetitions of word families in the most frequent second 1,000 words (West, 1953) and the Academic Word List (Coxhead, 2000) were counted during the examination. Data for words with 3, 5 and 10 encounters were collected. A case study was carried out with six words of the second 1,000 word list which were repeated 5 or more times in the text. These six words were randomly selected by systematic sampling method out of 187 words. All the pages of the course book were scanned and modified as text files by using ABBYY FineReader Sprint 5.0 Plus while for the analysis of the study, a computer program, Range (Heatley, Nation, & Coxhead, 2002), was used. It was found that six randomly selected words were repeated in 3 or more units. Therefore, the researchers concluded that this pattern showed that spaced repetition rather than massed repetition was used for the reoccurrences of the words. In addition, the results indicated that the textbook provided favorable opportunities for improving knowledge of frequently repeated words in the second 1,000 word list in terms of spaced repetition, frequency and collocations.

After examining the use of course books in vocabulary learning, the role of memory and recycling, which are two interrelated important components in the learning process, will be introduced in the next section.

2.2. The Role of Memory and Recycling

Memory has a crucial role in the complex process of vocabulary learning because it is important for learners to retain the new information that they have just learned. When Thornbury (2002, p.23) emphasizes the significance of memory, he states that “learning is remembering.” As traditionally classified by researchers,

Thornbury (2002, p.23-24) also deals with memory in three major systems. That is, short term memory, working memory and long term memory and he exemplifies each type with an aspect of language learning. Short term memory requires the repetition of a word that has just been modeled by the teacher. However, it is not adequate to retain the words for only a few seconds. They are needed to be included into the long term memory after being exposed to different operations. These operations are handled by the working memory with a function of focusing on them for long enough. Materials are kept in working memory for approximately twenty seconds, which is made possible by the existence of the articulatory loop and a process of subvocal repetition. As the working memory has a limited capacity and temporary content, the materials should be transferred into the long term memory which has a huge capacity and the information which is learned from the materials should be made durable over time. A learner can keep the new words during the whole teaching session in his or her long term memory. However, he or she may have forgotten them in the next lesson. This shows that long term memory is not as long as it is considered to be. Therefore, to retain the materials that have been stored in the long term memory and to make them permanent there, they must be recycled in certain ways and numbers.

Although there is a consensus about the necessity of repetition, researchers differ slightly in the adequate number of repetitions. Kachroo (1962, cited in Nation 2007) found that most learners learned the words which were repeated seven or more times while Crothers and Suppes (1967) found that six or more repetitions were required to be learned in their experiments. In more recent research studies, Rott (1999) discovered that 6 encounters yielded more learning gains. On the other hand, Peters (2014) revealed that the words which were repeated 5 times were recalled better both in single words and collocations. There are some other researchers who found that 5 occurrences of a word were enough for learners to acquire that vocabulary item (Tinkham, 1993; Waring, 2003; Huang & Liou, 2007). In fact, it is not surprising that the ideal number of repetition ranges from 2 to 10, which is a large interval. The reason for such a great difference stems from the definition of “vocabulary acquisition” or “vocabulary learning”. In other words, the ideal number of adequate occurrence depends on what is expected from learners to know about a word. If they are required to know only the meaning of a word, the answer to the

ideal number of repetition will be relatively low whereas the sufficient number of repetition will increase if they are expected to know other aspects of a word such as collocations and parts of speech. The researcher suggests that repeating a word 5 times gives at least an opportunity to the learner to meet another aspect of a word, together with the meaning, although it may not ensure that this aspect will be learned. In addition, when the literature was reviewed, although there was no full agreement on the exact ideal number, it was noticed that there was a fairly consistent consensus on the repetition number in that it should not be under 5 times. Practicality is another concern while deciding the threshold level. Since it is not easy to provide opportunities for recycling of each word in a printed material such as course books, a reasonable number for the minimum repetition is also required. Therefore, in the present study, the threshold level for recycling was accepted as 5 occurrences.

Previous studies have examined the effects of repetition and vocabulary development from various perspectives. Webb (2007) investigated the effects of repetition (1, 3, 7 and 10) on vocabulary knowledge in a carefully designed study which included 121 Japanese students studying English as a foreign language. Rather than focusing only on the meaning of the words, he examined the knowledge of orthography, grammatical functions, association, syntax, meaning and form. His study consisted of 10 nonsense words which replaced 10 frequently used words in short contexts which were usually one or two sentences long. The contexts were taken from five different graded readers from the *Oxford Bookworm Series*. The findings of the study revealed that more gains in knowledge occurred for at least one aspect of knowledge each time the number of repetitions increased. Webb discussed that remarkable gains in learning may occur if learners meet unfamiliar words 10 times in context. However, finally, he concluded that more than 10 repetitions may be needed to grasp full knowledge of a word.

Studies on vocabulary recycling indicated that repeated encounters had a significant effect on vocabulary development. Chen and Truscott (2010) sought the influence of repetition on the improvement of seven aspects of vocabulary knowledge. They used a study design based on Webb's (2007) research and found similar results to his findings. Owing to increasing meetings, they observed

developments in different levels of three aspects: knowledge of orthography, part of speech, and meaning.

In an experimental design, Peters (2014) investigated the three factors which were supposed to influence vocabulary recall on 24 vocabulary items: 1) the frequency of occurrences (1, 3 and 5 repetitions) 2) type of target vocabulary item (single words versus collocations) 3) the time of post-test administration (immediately after the treatment or one week after the learning session). The experiment was carried out in a classroom setting with a total number of 35 participants in two groups and data were collected during the class hour. The results showed a large effect of repetition regardless of the time of post-test administration. Significant differences were found in the recall of not only single words but also collocations between once repeated and 5 times repeated vocabulary items. Furthermore, the influence of the repetition was durable. The results also showed that collocations were more difficult to learn than single words.

In a corpus-based investigation of narrow reading, Gardner (2008) investigated the factors which were claimed to affect vocabulary recycling. The study consisted of fourteen collections of children's books which were analyzed in terms of authorship (being written by 1-4 authors), register (narrative vs. expository) and thematic relationships (containing similar topics) to find out in which conditions vocabulary is recycled in the selected materials. The results showed that thematic relationships influenced specialized vocabulary recycling within expository collections, while authorship impacted recycling within narrative collections.

As it can be seen, it is clear that recycling of words has a positive effect on vocabulary learning; however, it is ambiguous whether all types of repetitions facilitate vocabulary acquisition in the same rate or some certain types dominate over others. This ambiguity will be discussed in the next section by defining two different types of repetition and the findings of the previous studies on their effectiveness will be reviewed.

2.3. What Does It Mean “To Know a Word”?

Knowing a word requires knowing more than its meaning (Nation, 1990; Schmitt 2000). In other words, a learner should know other things about a word as

well as its meaning. Due to its incremental nature of vocabulary learning process, Schmitt (2008) emphasizes that learners need to acquire “the depth or quality of vocabulary knowledge” in addition to having a large number of words.

There are many aspects of a word to be learned and many degrees of knowing about a particular vocabulary item. Therefore, learners need many encounters with a word to increase their knowledge about that word. Furthermore, according to Nation (2007) each word has a learning burden, which he describes as the quantity of effort required to learn a word. He claims that each aspect which a learner needs to gain increases the learning burden of a word. Hence, vocabulary learning process requires multiple exposures to the target words and this exposure can be achieved with the recycling of the target vocabulary. As a result, it can be said that vocabulary recycling is a necessity not only in terms of the retention of the words which were encountered before but also in terms of acquiring the different aspects of a word.

Aspects of a word can be classified in different ways. For instance, while Schmitt (2000) classifies them in two general groups as a) meaning and organization and b) word form and grammatical knowledge, Nation (2007, p.40) categorizes them in three subtitles as a) form, b) meaning and c) use. Although they are labeled in different terms by researchers, the aspects which are included in these categorizations focus on nine similar components of a word as in the following:

- 1) Spoken Form (Phonology or Phonological Knowledge): Phonological knowledge includes the recognition and understanding of a word when it is heard in a flow of speech (Nation, 2007). It also involves being able to pronounce the word correctly and clearly enough so that other people can also understand when they hear. For example, a learner should be able to understand the word “island” when s/he hears it or s/he should pronounce it correctly while speaking.
- 2) Written Form (Orthography or Spelling): Spelling can be defined simply as the visual representation of a word. Schmitt (2000, p. 45) states that spelling is an important skill although it was traditionally underestimated. For instance, a person should be able to visualize how to write the word “investigation” in his or her mind.
- 3) Word Parts (Morphology): Morphology is related to identification of affixes and base form in a word. This aspect of the word requires being able to recognize the

base form of the word and differentiate between derivational and inflectional affixes. For instance, when a learner hears or sees the word “unfaithful”, he or she should be able to segment this word as “un-faith-ful” and should know “faith” is the base form of this word.

- 4) Concept and Referents: A word sometimes may have more than one entry when someone looks up a dictionary. Furthermore, it can be noticed that these entries are sometimes completely different from one another. For example, about the word “left”, two entries can be found in a dictionary: “left” as the past form of “leave” and as the opposite of “right”. According to Nation (2007), unrelated meanings like these, should be learned as distinct words and it is better to learn them at different times.
- 5) Form and Meaning: Learners usually consider that they know a word if they know its spoken or written form and its meaning. However, knowing a word entails the ability to connect the two of them. The connection between form and meaning is strengthened with repeated exposures to the word (Baddeley, 1990, p.156).
- 6) Associations: Words are related to each other in different ways (Schmitt, 2000, p.37-38). While some of them have a relationship in terms of their similar meaning (i.e. abandon and leave), others may be related to each other because they are in the same word family and share a base form (i.e. irresponsible and responsibility).
- 7) Grammatical Functions (Word Class or Part of Speech): A learner needs to know what word class a lexical item is included in to able to use that item correctly. Schmitt (2000, p.58) claims that many research studies focused on the four main classes of words (noun, verb, adjective and adverb) although there are other categories except them.
- 8) Collocations: Knowing a word also requires knowing what words it is used with or occur together frequently. For example, a learner of English should learn that “make a mistake” (not “do a mistake”) and “do a favor” (not “make a favor”) are the correct collocations.
- 9) Constraints on use (Register, frequency etc.): Register is related to appropriateness of a word for certain language situations or language purposes. Schmitt (2000, p.31) exemplifies register by using the word “skinny”. Although “thin” and “skinny” have similar meanings, it is not appropriate to call your neighbor or friend as “skinny” because it has the connotation of “so thin as too be

unhealthy or unattractive”. However, “skinny” can be used to describe children who are dying of hunger in Africa. Some words are more useful than others when their frequency is taken into account. Therefore, while learning new words it is important to check or know these words are low frequency or high frequency words.

As it can be seen, there are many aspects of a word which should be learned by a learner. However, it is not possible for learners to acquire so much new knowledge about a lexical item with a single encounter. Therefore, to promote vocabulary learning, repeated exposure to the target word is precondition not only for the retention of the newly learned items but also for the acquisition of different aspects of a word.

2.4. Types of Repetitions in Vocabulary Learning

It can be said that recycling is a prerequisite for vocabulary learning because it promotes remembering. However, not all types of repetition are effective in the same rate in vocabulary acquisition. As other researchers, Thornbury (2002, p.24) argues that words will be remembered with a better chance if they have been encountered at least 7 times over spaced intervals. Unlike others, he implies that not only how many times a word is repeated but also how it is repeated is vital. Similarly, Nation (2007, p.76) emphasizes the quantity and quality of the repetition in terms of its nature by drawing attention to the intervals between the repetitions. Thus, he differentiates between spaced repetition and massed repetition. Nation explains and illustrates the difference as follows:

Massed repetition involves spending a continuous period of time, say fifteen minutes, giving repeated attention to a word. Spaced repetition involves spreading the repetitions across a long period of time, but not spending more time in total on the study of the words. For example, the words might be studied for three minutes now, another three minutes a few hours later, three minutes a day later, three minutes two days later and finally three minutes a week later. The total study time is fifteen minutes, but it is spread across ten or more days (Nation, 2007, p.76).

He claims that spaced repetition will lead to learning that will be remembered in a long time and he suggests that the time intervals between repetitions should be increased gradually at each time. Other researchers also believe that spaced repetition has a stronger effect in learning. Many studies have investigated and supported the benefits of spaced repetition in general (Baddeley, 1998, p.109) and particularly in

second language (L2) learning (Bloom & Shuell; 1981). In an EFL learning setting, Dempster (1987) conducted a study in which he investigated the effects of the encoding variability hypothesis and the spacing phenomenon with five experiments in a vocabulary learning setting. Although he found no significant results caused by the different encoding conditions, his study resulted in considerably higher learning of vocabulary in spaced presentation than in massed presentations.

As in Dempster's research, the studies in the literature on spaced and massed repetition depend on experimental designs and they focus on learning settings. Research studies which examined and compared teaching materials in terms of massed and spaced repetition techniques are scarce. However, there are some other studies which investigate only the effect of spacing during some time intervals without comparing it to the massed repetitions. Seibert (1927; 1930 cited in Nation 2007) measured recall over eight weeks. Nation says the results of his study support Pimsleur's (1967) findings in his memory schedule. According to Pimsleur, most forgetting occurs soon after the first learning session and it slows down in time. Therefore, he suggests that learners should review new material immediately after the initial learning. Another study on the spacing effect was carried out by Anderson and Jordan (1928). They investigated retention immediately after learning, after one week, after three weeks and after eight weeks. They found out that forgetting was at the maximum rate soon after the initial meeting with learned items and then this rate decreased by time. After presenting some similar studies, Nation (2007) concludes that new items should be reviewed immediately after they are studied for the first time before too much forgetting takes place, which was also proposed by Pimsleur.

Studies which have investigated textbooks in terms of spaced repetition in vocabulary teaching with a content analysis technique are very rare. Although it was limited with only one course book, Alfaki (2015) examined a course book called Spine 5 which is a Sudan Practical Integrated National English Book, and discovered that there was not enough recycling of words. In addition, he found that recycling words were not based on the principles of spaced repetition and it was found that they were massed in the same pages throughout the course book.

Matsuoka and Hirsh (2010) state that no published studies on vocabulary occurrence in commercial ELT course books exist. They claim that despite many

text-based studies which have analyzed different types of materials such as novels, newspapers, graded readers, writing samples of EFL and ESL students, information booklets, TV programs and a combination of press, academic and fiction texts, course books have not been investigated. They emphasize that previous studies on textbooks focused on the flexibility, design and teachability of course books and the effectiveness of course books in learner training. However, in their text-based study, they investigated the patterns of vocabulary repetition in upper-intermediate ELT course books. Their findings indicated that the course book provided good opportunities for the presentation of the second 1,000 most frequent words in terms of frequency, spaced repetition and deepening knowledge such as the use of collocations.

Language studies on spaced repetitions are not limited to English language teaching. Researchers also examined other languages such as Japanese-English word pairs (Pavlik & Anderson, 2005) and German content and function words (Schutze, 2015). Schutze pointed out that past studies on the spacing effect did not differentiate between short term and long term retentions in terms of massed, uniform and expanded intervals of spacing; therefore, she designed an experimental study to find out whether a difference exists between their gains. The participants were 76 university students who were registered in Beginning German classes. The study contained two experiments which differed only in their “one plus three” and “one plus four” designs. The test results showed that, the expanded group got higher mean scores than the uniform group in short term retention whereas in the long-term test it was the reverse. The results of the two experiments confirmed each other. Furthermore, in the second experiment, it was found that the students who used expanded intervals had difficulty in remembering the function words. Bloom and Schuell (1981) compared the effects of distributed and massed practice in an L2 French learning setting. The participants were 52 high school students who were enrolled in a second-level French course. Vocabulary teaching treatments were carried out during the regular class time under the conditions of massed and spaced practice conditions. The group who were exposed to distributed practice studied twenty words in three learning sessions each of which was 10 minutes long in successive three days whereas, the massed practice group completed the learning session during a 30-minute period on a single day. Although both groups performed

almost identically immediately after the learning sessions, the scores of the distributed practice group were better than the massed practice group on the second test which was administered four days later.

As the previous studies revealed, spaced repetition seems to have more influential effects in vocabulary learning. The reason for the success of spaced repetition will be better understood in Section 2.5., with a brief introduction to a memory theory, which is very closely related to spacing of repetitions.

2.5. Pimsleur's Memory Theory

Pimsleur (1967) claims that memory has a vital role in learning a foreign language and adds that despite its great importance, it is the least inspected part of the language learning process in his time. He states:

Probably no aspect of learning a foreign language is more important than memory. A student must remember several thousand words and a considerable number of processes for adapting and combining them to attain even a minimal proficiency. Yet no aspect of language learning has been less well examined. While linguistic analysis and methods of teaching have developed rapidly, the problem of memory remained virtually unexplored (Pimsleur, 1967, p. 73).

Pimsleur opposes the idea that the responsibility for learning belong only to the students. He does not accept the belief that a teacher should teach the material in an arranged and interesting way as he can, but except this, it is not under teacher's control whether the students recall what they have been taught. He states that a teacher can make it possible to remember a word if he could revise all the words from previous teaching and he asserts that if these words are used again every day, the students will probably remember all the words. He agrees that it is impossible to repeat all of the words every day since new words are added on the next days. Nevertheless, it is very common to observe that many teachers revise vocabulary in certain periods. However, there is an absence of a specific technique to make this revision systematic since no course books facilitate this periodic revision.

Pimsleur's memory schedule was triggered with this "systematicity" thought. He believed that there may be a certain pattern or schedule for repetitions which is sufficient in terms of frequency to raise the student's memory level, however not so frequent to occupy an entire lesson time. For an elaborated schedule, Pimsleur argues that there may be different factors, such as the length of the word, pronunciation

difficulties and the interaction between the words, and these factors may require experimental investigation. His general form for such a schedule was based on the results of certain well-designed studies from experimental psychology and his own experience in programming three self-instructional courses (*Speak and Read Modern Greek*, Pittsburgh: American Institutes for Research, 1963; *Speak and Read Essential French*, Columbus, Ohio: Tapeway, 1964; *Speak and Read Essential Spanish*, Columbus, Ohio: Tapeway, 1966).

According to Pimsleur, if a word is taught orally and is repeated a few times after a native speaker until its pronunciation difficulties are solved, and then that word is asked to be recalled one second after learning, it is remembered with almost 100% certainty. Yet, while the seconds pass, the probability of that word to be remembered will decrease swiftly since the learner will be busy with learning some new words or materials. It is apparent that that word will be forgotten unless it is repeated again immediately. However, if the teacher is conscious of this risk and asks the word at a moment in which there is still a good chance of being remembered (such as 60% the knowledge about that word goes back to 100%. Then, a forgetting process begins again, but this time not as rapidly as before. If this process is repeated a few times, the length of time between the retention will be longer and this means the learner remembers the word in longer periods. According to Pimsleur (1967, p.75), “This fact –that each time a memory is “boosted” it retains its strength longer than the time before– is the keystone upon which to build foreign language materials.” He says there is not a special term for this schedule and he calls it “graduated interval recall”.

Pimsleur argues that a simple answer to the exact nature of this schedule does not exist because some factors, such as the length of the word, its frequency, word cognates will affect the number of the recalls. Yet, he proposes that the evidence from his programming experience and findings of experimental psychology seem to show that there is an ideal schedule that can be kept in mind and be adapted according to the conditions. According to him, this ideal schedule is exponential in form. In other words, if the first interval (between the first presentation and the first recall) is 5 seconds, the next interval may be needed $5^2=25$ seconds later, the next one $5^3=125$ seconds (2:05) later, the following one $5^4=625$ seconds (10:25) after that,

and so on. This schedule suggests that the teacher should reuse the word very frequently soon after its first presentation by dispersing it in other activities. Later, he/she should carry on recalling the same vocabulary by diminishing the frequency gradually, in other words with increasing intervals. In this way, the teacher can both maximize the retention of the words and save time at the same time. This principle opposes the idea of massing high numbers of repetitions when the word is encountered for the first time and defends the distribution of repetition in a suggested pattern. Massed repetition can only be a valid technique for teaching pronunciation and spelling in the first encounter of the word. Pimsleur suggests that the tenth recall will be 5^{10} (9,765, 625) seconds later, that is approximately 113 days or 4 months, which means after a very large interval it will still be remembered.

This memory schedule suggested by Pimsleur has a close relationship with spaced repetition which constitutes one crucial part of the second research question which investigates the type of repetitions in the selected course books. When the types of repetition are discussed for vocabulary teaching, it is shown that spaced repetition is more preferable in terms of effectiveness. At this point, Pimsleur's Memory Theory sets a framework to adjust the ideal intervals for spaced repetitions and explains how this spacing should be applied in teaching. However, the present study deals with spaced repetition in a more simple way since it is almost impossible to adjust the repetitions of a word in a textbook according to Pimsleur's original schedule. Therefore, the repetitions are evaluated on the basis of units in the course books. If the word is piled up and repeated in only one unit, the type of the repetition is called "Massed Repetition". On the other hand, if the word is distributed and repeated in different units, it is accepted as "Spaced Repetition".

After the discrimination between the two types of repetition, the next section goes a little further by drawing attention to some other requirements to improve vocabulary acquisition under the title of psychological learning conditions.

2.6. Psychological Learning Conditions

In second language vocabulary learning, as in other types of learning, there are some other factors except recycling and the types of repetition which promotes the recall of newly learned items. In terms of psychological conditions, according to

Nation (2007, p.63), three crucial general processes that may reinforce a word to be recalled exist. He lists these three processes as noticing, retrieval and generation (generative or creative use) and he states that these successive processes can be viewed as three steps in which the later steps include the earlier ones.

2.6.1. Noticing

Concerning the good qualities of language materials, Tomlinson (2008, p.5) points out that materials should contain activities which assist learners to notice the salient features of the text as well as presenting rich exposure to authentic language use. Similarly, Nation (2007) maintains that the first step for promoting learning is noticing which can be defined briefly as giving attention to a certain item. In other words, learners need to focus their attention on an item and to notice that it is a beneficial language item. Some other researchers (Baddeley, 1998, p.105; Schmidt, 1990) also assert that noticing (or attending) has a crucial role in learning because it affects the way in which learners process the information. Unlike these researchers, with regard to noticing, Nation also claims that noticing includes decontextualization. He states that decontextualization occurs if a learner pays attention to a language item as a part of language rather than concentrating on it as a part of a message. He illustrates several occasions in which decontextualization occurs as follows:

1. While listening or reading, the learner notices that a word is a new word, or thinks, "I have seen that word before," or thinks, "That word is used differently from the ways I have seen it used before."
2. The teacher highlights a word while writing it on the blackboard.
3. The learners negotiate the meaning of a word with each other or with the teacher.
4. The teacher explains a word for the learners by giving a definition, a synonym, or a first language translation (Nation, 2007, p.64).

With respect to designing activities to promote vocabulary learning, different techniques can be used in the classroom or in teaching materials. Pre-teaching the words, highlighting, underlining, italicizing, bolding, glossing, hypertext annotation, listing or placing the words in a box may increase the noticing of the words. In terms of vocabulary learning, these noticing techniques can be defined simply and illustrated as in the following:

Pre-teaching: It means teaching of new vocabulary before an activity. For example, before a reading or listening activity about natural disasters, a teacher can teach and explain some key words such as earthquake or flood.

Highlighting: It is a technique in which target words are specifically more illuminated to draw more attention. For example, “22 hours after the **earthquake**, a survivor was pulled from the rubble”.

Underlining: It can be defined as drawing a line under a word. For example, “22 hours after the earthquake, a survivor was pulled from the rubble”.

Italicizing: Using italic letters in a text can be called as italicizing. For example, “22 hours after the *earthquake*, a survivor was pulled from the rubble”.

Bolding: It means typing a word in bold letters. For example, “22 hours after the **earthquake**, a survivor was pulled from the rubble”.

Glossing: It is a type of notation or a very short definition for target words in a text. There are different glossing conventions such as pre-text, post-text or marginal glossing. For example, a brief definition such as “earthquake: a sudden movement of the earth's crust” can be placed in the margin where the word is used, before or after a text in which the word is used.

Hypertext annotation: It can be defined as a type of glossing which occurs with a click of mouse or when the cursor is put on an unknown item, usually in online or electronic materials to give the meaning of words through pop-up windows or internal or external links. For example, a short definition of “earthquake” pops up on the screen when the word “earthquake” is clicked.

Listing: Listing means putting a target word after the other. For example, in vocabulary sections of textbooks, words can be given in a list without any explanations as below:

earthquake

flood

demolish

disaster

Placing in a box: It can be defined as a type of listing in which target words are put in a box as in the following.

earthquake
flood
demolish
disaster

2.6.2. Retrieval

The second process of psychological conditions for promoting learning is retrieval which enables a word to be remembered. Joe (1995) points out that retrieval of target words during free recall of information from the text assists learners to remember those vocabulary items better and gives them a chance to practice exploiting the words in meaningful contexts. After a word is noticed, if that word is retrieved later in some tasks, the recall of that word will be strengthened. Similarly, when words are recalled successfully, learning of those items is reinforced. Retrieval is an important stage as it connects two steps to each other and if this stage is not completed successfully, there will be a break down in the process of vocabulary learning.

Some studies (Rott, 1999; Waring, 2003) show the significance of repetition in vocabulary learning; however, it is not adequate to merely repeat a word. Baddeley (1990, p.156) stresses that repeated opportunity to remember a word is essential rather than a simple repetition. That is, it is important for learners to retrieve what they already know about a word when they see or hear it. This retrieval may be the retrieval of ideas stored in initial meetings or retrieval of content and information from the current meeting. He suggests that each retrieval reinforces the connection between form and meaning and makes the next retrieval easier. From another point of view, Nation (2007, p.67) draws attention to the length of the interval between two retrievals. He asserts that if there is too much time between the prior meeting and the present encounter, then the present encounter is not an effective repetition, but rather

it is like a first meeting. He adds that even if only a memory of prior meeting is remembered, the present encounter reinforces the acquisition of that word.

In the classroom environment and in teaching materials, it is important to design activities to foster retrieval. Since learners meet many words in a lesson or in a unit, it is not sufficient for them to be introduced to them with a single encounter. On the contrary, learners need to practice with the newly learned items to keep them in their long term memory. Nation (2007) suggests several ways to encourage retrieval in vocabulary acquisition. He claims that reading the same story a few times or serializing a long story can be effective to promote retrieval since there is a tendency to repeat the same vocabulary in these activities. In speaking or writing, teachers can prepare some activities in which learners need to reuse the same words. The rationale behind these suggested ideas is that they facilitate learners to encounter with the same words in the same context. When it is handled in this respect, narrow reading can also be an alternative way for the retrieval of words since it creates opportunities to revise the same vocabulary. Narrow reading can be defined as reading on the same topic from a variety of different sources. Due to this nature of narrow reading, some key words of the topic recur in the text and provide an advantage for learners to be exposed to these vocabulary items repeatedly. With respect to this issue, Schmitt and Carter (2000) argue that vocabulary acquisition necessitates repeated exposures to the words and narrow reading provides recurrence of vocabulary. Cho, Ahn and Krashen (2005) maintain that narrow reading has two main advantages for learners. Firstly, it makes the text more comprehensible owing to familiar background knowledge which is gained from other topic-related readings. Secondly, learners can benefit from advantage of the repeated exposure to the same words in different readings. Concerning the vocabulary gains from narrow reading, Gardner (2008) found that thematic relationships in expository texts and authorship in narratives provided more recycling of the same words.

After discussing some favorable prerequisites for vocabulary learning such as noticing and retrieval, generation which is the last step of the necessary learning conditions, will be the focus point of the next section.

2.6.3. Generation (Generative or Creative Use)

The third major step that may help a word to be learned is generation. Generation occurs when previously encountered words are later met or used in different ways. If the new encounter with the word leads learners to rebuild their knowledge of that word, it can be said that generative use is at a high level. Joe (1995) states that generative processing occurs when novel ways of using target words in new contexts are provided. She adds that generation requires learners to trigger their previous knowledge of that word and to associate this with new information. Joe also believes that connecting prior and present information during recall enhances learners to “reformulate” the meaning of the word.

Tomlinson (2008, p.5) implies the necessity of generation in language learning materials. He claims that although practice activities create opportunities to meet language items frequently, they do not make much contribution if they do not add anything novel. In contrast, what is needed in materials is that they should provide favorable circumstances for learners to use the language. This claim may also be true specifically for vocabulary learning in course books. Although many textbooks provide repeated exposure to the same words, they may ignore generative use of vocabulary, which is aimed to be analyzed as an important aspect of this research study.

Nation (2007, p.69) points out that generative use can be in different degrees. He categorizes generation as “low” when there is a slight difference between the previous and present use in the linguistic context (i.e. *chronic pain* becomes *very chronic pain*); while he classifies it “high” if a remarkable difference exists between two uses of the words (i.e. *chronic pain* becomes *chronic backache* or *chronic illness*). Joe (1995) found that there was a close relation between the degrees of generation and the amount of learning in retelling task. The results showed that the greater the level of generation was, the more gains in vocabulary learning for unknown words were obtained. According to Nation (2007), negotiation of the meaning of a word usually includes generative use of that word during the negotiation process. Newton (1993, as cited in Nation, 2007) found that the negotiation of the meaning of the word led to an increase of its chance of being remembered considerably.

Generative processing or generative use can be encouraged in different ways. Nation (2007) maintains that using long stories, as in retrieval, may contribute to generative use because these stories facilitate the same vocabulary to occur in the text. Thus, if the recurrence of the word differs from the previous encounter, generation will be provided. In addition, he suggests that using contextual definitions, in other words definitions using example sentences, may support generative use while teaching a word.

Despite the scarcity of studies on generation, Joe (1995, 1998, 2010) carried out three research studies in which she investigated different aspects of generative use. In a case study, Joe (1995) examined the vocabulary gains of an adult English learner. The subject participated in a vocabulary interview and performed in a read and retell task. During the task, an oral protocol was carried out in the retelling part of the task. Then, the learner completed a second vocabulary knowledge interview and two multiple choice tests. In this study, Joe investigated the influences of the three learning conditions, which are noticing (or attention), retrieval and generation. The data from this research came from a larger study in which the effects of read and retell tasks and generative processing on incidental vocabulary learning were investigated. The two groups (an experimental group and a comparison group) were compared in a read and retell task. The experimental group was given informal instruction about generative processing, read a 338-word text and retold the information to a listener without access to the written input. On the other hand, the comparison group performed the same task with access to the input text without an instruction on generative learning.

The subject of this case study had been included in the comparison group in the previous study. He was chosen for the case study since his pretest interview and performance in the task was a representation of the median for learners with high background knowledge. The results of the case study indicated that learning conditions assisted the participant to increase his vocabulary knowledge gains. The researcher concluded that noticing the similarities and differences between a specific word and other words; making elaboration on the differences during the oral recall and retrieving and lastly, using the word in a creative way (i.e. generative use) helped the learner to acquire the meaning of that word.

In another study, Joe (1998) investigated to what extent generation affected incidental vocabulary learning in text-based tasks. 48 adult ESL learners participated in the study in which three conditions were examined in different groups to find out the influences of generation: (a) reading and retelling a text with explicit generative training and without access to the text during recall, (b) reading and retelling a text without explicit generative training but with access to the text during recall, and (c) neither reading nor retelling a text. All the participants completed a pre-test which involved an individual interview and a read and retell task and a post-test consisting of an individual interview and two multiple choice tests. As a reading material, an expository text which was about “pain” was chosen since it was thought that learners were familiar with this topic and had some background knowledge. The results indicated that read and retell task fostered incidental vocabulary learning and generative processing promoted vocabulary learning as well. It was found that the greater the level of generation was, the more gains in vocabulary learning for unknown words were obtained.

In a more recent study, Joe (2010) examined how the frequency and quality of encounters influenced vocabulary learning. She claims that although there are some studies which focus on only one or two of the following conditions, there are no studies which investigate all of these three conditions at the same time by using both qualitative and quantitative data: a) quality of input, b) quality of output and c) frequency of encounters. This study was a longitudinal case study in which a Turkish adult learner participated as the only subject during an “English for Academic Purposes” Program. The participant completed pretest and post test vocabulary knowledge interviews. The findings showed that there was little improvement in the learner’s word knowledge and his use when there were few encounters through input alone whereas there was an increase in incremental vocabulary knowledge when the learner was exposed to one or two tokens of the target word in reading or listening. In addition, it was revealed that the words which were used in novel ways were the ones which were encountered more frequently. With respect to level of generation, it was found that the words which were learned better were ones that had been used with a degree of “reasonable” or “high” generation. To summarize, most of the words the learner acquired were encountered frequently across the course and included greater levels of generative processing.

2.7. Significance of the Study

After Joe's (2010) study, to the researcher's knowledge, no specific studies were carried out on the generative use of vocabulary. Some key words about generative use were searched online via "Google Scholar" by limiting the time interval between 2010-2016 to find out whether any studies were conducted or not after Joe's study. Although no direct results for generative use in vocabulary learning were obtained during the online search, it was found that three studies indirectly touched upon the use of generation in terms of the necessity of learning conditions (Ozola, 2012; Sasaki & Takeuchi, 2010; Nakata, 2011). However, it should be underlined that generative use was neither included in the main purposes of the study nor stated in the research questions specifically.

This research study was inspired by a section of Nation's (2007) book entitled with *Learning Vocabulary in Another Language*. In his book, Nation states that "There have not been any studies examining the degree of generative use of vocabulary in long texts such as simplified readers" (p.73). Starting with this point of view, the researcher decided to study on course books which are not only long in terms of scope but also much more frequently used materials in the language classrooms. After the online search via Google Scholar, the researcher contacted with Paul Nation via e-mail to check whether she missed any studies in this area. She also asked about the threshold level for learning conditions and how to operationalize the data since, to her knowledge, no studies investigating the learning conditions were conducted. Nation confirmed that there have not been any published studies and with regard to the threshold level, he stated that although it is not known exactly, he said that "the more the better".

This research study is unique in a few aspects. Firstly, it attempts to investigate an area which has not been investigated and presents some results for the literature. Secondly, it adopts a different study design, which is "content analysis", from Joe's studies since two of her studies were case studies and the other one was an experimental study. Furthermore, when the study design is taken into account, the present study is much more comprehensive and detailed when compared to other studies which were carried out about recycling and the types of repetitions as well. Lastly, one of the distinct features of the current research is that it combines three

interrelated aspects of vocabulary learning (recycling, types of repetition and learning conditions) in a single study. However, it should be underlined that the results which will be obtained after this study need some confirmation with further research especially with some experimental studies and some missing aspects which stem from being the first attempt in this area should be fulfilled with future research.



CHAPTER III METHODOLOGY

3.1. Selection of the Course Books

For the present study, in accordance with the research questions, three intermediate level course books from three different publishing companies were chosen. The researcher determined the selected publishing companies on the basis of being a well-known company throughout the world and her availability to the course books. She decided to study on intermediate level and adhered to the publishers' level setting. In the selection of the course books, publication year was also paid attention. The course books were selected among the ones which were published in the last five years (2010-2015). In this way, it was guaranteed that the course books were still in use and it was fairer to compare them in terms of their vocabulary recycling and repetition types. In addition, the length of the units and the whole book was another criterion in the selection of the books; more or less the course books in total and unit by unit had the same length. To be more precise, all the three course books included 8 pages in each unit but they differed slightly in terms of extra materials at the end of the course book (New Success, 12 units, 107 pages; Face2face, 12 units, 95 pages; Aim High, 10 units, 90 pages). It is important to state that all the course books were chosen among the course books which were written for the curriculum of English for General Purposes (EGP), neither for English for Specific Purposes (ESP) nor English for Academic Purposes (EAP).

In total, the present study included six course book components which were three Student's Books (SBs) and three Workbooks (WBs). The course books used in the study are listed below:

1. Aim High Student's Book 3 by Tim Falla, Paul Davies and Jane Hudson; Oxford University Press, 2010
2. Aim High Workbook 3 by Tim Falla, Paul Davies and Jane Hudson; Oxford University Press, 2010

3. Face2face Intermediate Student's Book by Chris Redstone and Gillie Cunningham; Cambridge University Press,2013-2nd Edition
4. Face2face Intermediate Workbook by Nicholas Tims with Chris Redstone and Gillie Cunningham; Cambridge University Press,2013-2nd Edition
5. New Success Intermediate Student's Book by Bob Hastings and Stuart McKinlay; Pearson,2012
6. New Success Intermediate Workbook by Lindsay White, Rod Fricker and Peter Moran; Pearson,2012

3.2. Selection of the Words

After the process of course book selection, all the SBs and WBs were scanned in the searchable pdf format. First of all, it was decided that the vocabulary list of the course books would be the basis for the analysis during the study. Therefore, the vocabulary list for each unit was put together to create a whole list for each course book in an Excel document format. While the lists were being prepared, words were copied from the scanned pdf pages. However, there were lots of unidentified characters during the copy-paste procedure. Thus, the lists were edited and typed when it was required. Next, course books were examined roughly to find out the design of each textbook in terms of the number of the units, vocabulary sections and the location of their vocabulary lists. Then, the number of words in each textbook was investigated and calculated in details. It was noticed that one of the publishing companies –Cambridge University Press– did not have a vocabulary list at the end of the course book. Rather, it included more detailed vocabulary reference pages in which there were explanations about the words and example sentences. Therefore, a completely new vocabulary list was formed by the researcher by using these reference pages and examining each vocabulary section of all the units.

After all the lists were created and gathered in an Excel format, the total number of words in the three different textbooks was calculated. It was seen that a significant difference existed among the books in terms of their total number of words they included in their vocabulary list (New Success, 2179 words; Aim High 1185 words; Face2face, 810 words). The reason for such a difference may be that all the publishing companies adopted a different rationale behind their vocabulary list preparation process. To illustrate, while New Success by Pearson consisted of the

highest number of words because it seemed that almost every word in each reading text was written in the vocabulary list, Face2face by Cambridge University Press included the lowest number of words because the researcher put only the words in vocabulary sections into her list and Aim High by Oxford University Press was between these two course books. This difference among the textbooks revealed that publishing companies put more words in their vocabulary lists than they aimed to teach. Since the textbooks contained a very high number of vocabulary items, the words to be used in the study were selected rather than including all the words in the course book vocabulary lists. While selecting the words, according to British¹ National Corpus (BNC), “The most frequent 2000 headwords” list was used as a basis for this research study. The three vocabulary lists of the course books by different publishing houses were compared separately with the most frequent 2000 words and the intersecting words were identified. In the intersection lists, Aim High, Face2face and New Success included 160, 179 and 498 words respectively. Since there was a significant difference between New Success and the other two textbooks, the researcher decided to make another selection for the words in New Success to equalize the number of the words among the course books. Systematic sampling method was used to choose the words and every 3rd word in the list was included in the study. In this way, the number of words decreased to 166 for New Success. As a result, the present study consisted of 505 words from three different intermediate course books (See Appendices for the words included in the study and their frequency in each course book).

3.3. Data Collection Procedure

After the words which would be included in the study were selected and listed alphabetically in an Excel document, these lists were called as “research lists”. The data for all the research questions were gathered in the research lists during the study.

Data entrance consisted of three main stages. In the first stage, each word in the lists was searched in SBs and WBs at the same time through FoxitReader scanning and the number of repetition was entered in an analysis chart. During the

¹ The most frequent 2000 list was obtained from Nation’s website:
<http://www.victoria.ac.nz/lals/about/staff/paul-nation>

word scanning, only the occurrence of a word in units was taken into consideration. In other words, the occurrence of a word in extra parts at the beginning of the course book (i.e. content pages) and at end of the course books (i.e. grammar or vocabulary reference pages, functions bank etc.) was excluded in the number of repetitions since all the course books had different additional materials in these parts. In addition, the materials which are placed at the end of the textbooks are mostly optional for teachers and learners to use them. Since it would vary from a class to another whether these additional materials would be used or not, these sections were not included in the study. To be more precise about the scope of analysis, the search interval for the occurrence of a word in scanning procedure was between the beginning page of the first unit and the last page of the final unit.

After the number of occurrences for each word was calculated, the number of repetitions in the SBs and WBs was entered in the analysis chart separately, they were added up and the total number of repetition was calculated in this way. During the study, this total number was the first criterion for vocabulary recycling which was addressed in research question 1. Moreover, the same data were used to restrict the sample words for the following research questions which were about the types of repetition and the required learning conditions. Therefore, an interval between 5 and 20 repetitions was designated for further investigation in the research study. The lowest number was determined as 5 since the research studies in the literature showed that a word should be encountered at least 5 times to be learned (Tinkham, 1993; Waring, 2003; Huang & Liou, 2007). When the number of repetitions was compared in the course books, it was noticed that there were only one or two words which repeat over 20 times in all the books (See Table 4.1. for the number of words which repeat below and above 20 times). Therefore, 20 was accepted as the highest repetition number for the interval in the following research questions. When the data were examined, it was seen that the number of the words which repeat from 5 to 20 was 78 in Aim High, 91 in Face2face and 101 in New Success. This means that research questions 2 and 3 included a total number of 270 words for further investigation.

The data entrance for the second and third stages which were carried in a qualitative method was completed simultaneously for each word. In the second stage,

the number of the repetition in each unit was identified by looking at the page number of the word occurrence in Foxit Reader and entered in the analysis chart. When the number of repetition in each unit was taken into account if the word was piled up and repeated in only one unit, the type of the repetition was called “Massed Repetition”. However, if the word was distributed and repeated in different units, it was accepted as “Spaced Repetition”. During this classification, inter-rater reliability was established by a discussion on the unambiguous items between the researcher and her advisor. Five words were decided to be excluded in this phase of the study as they were completely unfit in the conditions for neither massed repetition nor spaced repetition. In other words, these words were not recycled in the same unit (massed repetition) or not repeated in units which come after another (spaced repetition). In the third stage of data entrance, the usages of each word were examined in detail in terms of learning conditions under three subcategories: noticing, retrieval and generation. The number of noticing, retrieval and generation uses was entered in the chart according to some basic criteria as follows:

1. While categorizing the occurrences of a word as Noticing (N), Retrieval (R) or Generation (G), the occurrences of the word was started to be examined after the unit where this word was included among the target words in the vocabulary list. For instance, if a word is listed in Unit 3 vocabulary list; however, it occurs in Unit 1 or Unit 2, these uses before Unit 3 are not evaluated in terms of noticing, retrieval or generation. The rationale behind this is that the word is not aimed to be taught before that unit and it is encountered just by coincidence.
2. If there are not any signs for noticing; however, the word is repeated at least twice on the same page, it is accepted that it will be noticed in the second encounter with the same word since it is very probable that the learner will think "I have seen that word before" (Nation, 2007, p.64).
3. When the word is examined in terms of generation, the first encounter with the word is the basis for the meaning and the form during the examination and all the uses of the word are evaluated comparing to this basic meaning and form, not to the previous or the next occurrence. For example, if the word “stare” is used as a verb in the first occurrence and as a noun in the second occurrence, the next encounters with this word are compared with the verb form and its meaning in the first occurrence. The reason for accepting the first occurrence as the base form is

related to the hierarchy among the learning conditions. In other words, because each step includes the prior steps, the word should be evaluated based on the earliest step, which is noticing.

4. If a three-unit interval exists between the two meetings of the same word, this meeting is considered as the first meeting after such a long interval even if it is the third, fourth or fifth meeting of the word. In this case, if there is a noticing sign, this encounter is accepted as noticing; if there are not any, the second encounter is accepted as noticing and following encounters are analyzed accordingly. For example, if a word is met in Unit 2 for the last time and next it occurs in Unit 6, this occurrence in Unit 6 is its first meeting again. If there is a noticing technique for this occurrence in Unit 6, it is accepted that this word is noticed again. However, if there is no sign for noticing, the second encounter with the word in Unit 6 is the first occurrence where it is noticed. With regard to this, Nation (2007) argues that if too much time passes between two occurrences of a word, the second encounter is like a first encounter although he does not state a specific duration. While deciding on the limit of “three units”, the length of the education year and the number of the units were taken into consideration. It was calculated that teaching three units, in Turkish education context, approximately corresponds to, two months which is not a short period of time to retrieve a word.
5. While spacing is being analyzed, SBs and WBs are accepted to be complementary for each other in terms of units. In other words, spacing is not searched separately in SBs and WBs; on the contrary, they are handled as a whole. For example, if a word occurs in units 5, 6 and 10 in SB and in units 1, 2 and 7 in WB; it is decided that a three unit interval does not exist between the occurrences of the word since it is encountered in units 5, 6 and 7 in the whole course book regardless of being in SB or WB.

At this point, it is important to state that these criteria which were created by the researcher for the current study cannot be claimed to be valid completely. Although most of them (especially 2, 3 and 4) had some direct reference points in the literature, some criteria were created inferentially and the rationale behind them were tried to be explained.

In this last stage of the data collection procedure concerning the learning conditions, inter-rater reliability was checked by a colleague of the researcher who is a native speaker of English and teaches English as a foreign language as well.

3.4. Labeling the Learning Conditions

As implied by Nation (2007, p.74), there is a lack of table that relates the learning conditions to the signs which show they are occurring or to the features of the activities that signal to encourage them. Despite this, Nation presents a table in which he summarizes the signs and features of vocabulary activities promoting the conditions and he adds that it may be possible to create a more detailed table when the knowledge of vocabulary learning increases. Hence, to categorize the learning conditions in three groups as noticing, retrieval and generative use, the researcher created a “Learning Conditions Signs and Features” checklist by adhering to Nation’s available table and adding some more by sticking to his definitions and explanations about these key terms. The items which are added by the researcher are typed in italics in the list. This list of “Learning Conditions Signs and Features” was used by the researcher and the inter-rater to evaluate and categorize the learning conditions in the study. If they had disagreed on a word, the word was judged by the thesis advisor as a third rater.

Checklist for Learning Conditions Signs and Features

Noticing	<ul style="list-style-type: none"> ▪ Pre-teaching the words ▪ Highlighting ▪ Underlining ▪ Italicizing ▪ Bolding ▪ Glossing ▪ Giving definition ▪ Unknown words in salient positions ▪ Negotiation ▪ <i>Listing the words</i> ▪ <i>Placing the words in a box</i> ▪ <i>Using the word on the same page at least twice</i> ▪ <i>Annotating through hypertext</i>
Retrieval	<ul style="list-style-type: none"> ▪ Retelling the written or spoken input ▪ Making the necessary vocabulary reuse ▪ <i>All uses of the word except noticing and generative use</i>

Generation	<ul style="list-style-type: none"> ▪ Role-play based on written input ▪ Retelling without the input text ▪ Brainstorming ▪ Recurrence of the word in a different context ▪ Contextual definitions ▪ <i>Using the word in a different form but in the same/similar meaning (i.e. dance in noun and verb form)</i> ▪ <i>Teaching the parts of speech</i> ▪ <i>Using derivational and inflectional affixes</i> ▪ <i>Teaching associations of the word</i> ▪ Teaching the register where the word can be used appropriately ▪ <i>Showing the most frequent collocations</i> ▪ <i>Teaching the connotations of the word</i>
-------------------	---

3.5. Materials

The study included three intermediate SBs and their WBs published in 2010-2015 by three different publishing companies and a checklist for the required learning conditions. The course books were examined by the researcher to have a general idea about the design and the content of the book besides being used for the main examinations in the study. The checklist was used to classify the learning conditions for the analysis of the last research question.

Aim High: It consists of 10 units each of which comprises of 8 pages in both SB and WB. It includes a vocabulary list not only in SB but also in WB. Although both of them are organized unit by unit at the end of the books, SB vocabulary list is designed according to the part of speech whereas WB vocabulary list (It is called “Vocabulary Notebook” by the publishing company and it has some space to take notes) is organized alphabetically. The total number of listed words in this course book is 1185. In Teacher’s Book (TB), Hudson, Falla and Davies (2010, p.5) state that the wordlist provides a lexical summary of the active and passive vocabulary of each unit although it not explained what is meant by “active” and “passive” specifically. However, Aim High provides learners with an opportunity to differentiate between more useful words and the others by using an Oxford 3000™ symbol.

With respect to the vocabulary section of the SB, Hudson, Falla and Davies (2010, p.5) , in TB, claim that:

- The “Activate” section recycles the vocabulary from the reading page in a different context to check understanding.
- The “Extend” section introduces new lexical sets related to the topic and focuses on aspects of vocabulary such as word-building, collocation and phrasal verbs.
- All the target vocabulary from the unit is highlighted in bold in the “Wordlist” at the back of SB.

The statements above imply that the textbook takes vocabulary recycling and some learning conditions into consideration, such as noticing and generative use. At the back of the course book, SB contains 10 “Grammar Reference and Builder” sections and an irregular verb list while WB includes five “Round-up” sections, a “Functions Bank” and “Writing Bank”.

New Success: It comprises of 12 units all of which have eight pages in both SB and WB. In this course book, there are three vocabulary lists which differ in their location in the textbook and their organization style. SB vocabulary list is placed at the back of the book and it is ordered alphabetically unit by unit. The WB has two different vocabulary lists. While one of them is located at the end of each unit and ordered thematically, the other is listed at the back of the WB thematically, however, not unit by unit. The course book includes 2179 words in total. In the “Principles behind the course” section of the TB, it is asserted that the course book gives a strong focus on vocabulary input and practice by being consolidated and practiced in “Revision” sections. In addition, it is emphasized that the word list in the WB are presented on a grey panel next to the exercises. The book suggests students should first do the exercises and refer to the word list. After the students complete the exercises, they are recommended to cover the word list to check whether they can remember all the words.

The course book consists of different end-of-book materials in SB and WB. Some sections such as “Student Activities”, “Culture Shock”, “Writing Bank” and “Irregular Verb List” are included in SB. On the other hand, WB provides a part called “Exam Vocabulary” in which extensive themes are presented. This part is followed by vocabulary exercises in “Exam Vocabulary Practice” section.

Face2face: It contains 12 units which are eight pages in SB but five pages in WB. A specific vocabulary list exists neither in SB nor in WB. However, there are

12 “Language Summary” sections which are thematically designed at the back of the SB including detailed vocabulary explanations and whereas the WB does not have any word lists. Therefore, the researcher prepared a vocabulary list at the beginning of the study by using the words in the “Language Summary” sections and examining the vocabulary parts in the SB and she formed a list of 810 words in total. In the TB, it is claimed that the course book gives importance to regular revision and recycling of language. It is also put forward that “Quick Review” sections at the beginning of every lesson and “Extra Practice” sections at the back of the SB provide opportunities to enable recycling.

As an end-of-book material, the course book supplies “Pair and Group Work” activities, one page “Extra Practice” sections for each unit, “Language Summary” parts, “Audio and Video Scripts” and “Irregular Verb” list in the SB, a two-page “Reading and Writing Portfolio” for each unit in the WB.

When the books were compared in terms of extra materials for vocabulary teaching, it was revealed that although all of them supply additional pages in the end of either in SB or in WB, they differ dramatically in the amount of extra practice for vocabulary. While New Success presents extensive specific pages for vocabulary exercises, Aim High contains some vocabulary parts accompanied by grammar exercises for every two units and Face2face prefers giving explanations only on certain words. It seems that New Success is more comprehensive in terms of end-of-book support materials when compared to Aim High and Face2face.

3.6. Data Analysis

In the first part of the present study, after the repetition number of each selected word from the three course books was calculated, recycling was investigated through comparisons among these course books. In other words, the three course books were compared based on the number of repetitions. In addition, for the analysis of recycling, course books were also examined by comparing their SBs and their WBs. In the second part, the distribution of repetitions within a course book was examined as spaced repetition or massed repetition. In this phase, the units in SBs and WBs were accepted as supplementary for each other rather than separated units. In other words, the distribution of repetitions was not analyzed separately in

SBs and WBs; conversely, they were combined during the analyses. Lastly, to search for the required learning conditions, the recurrences of a word were classified as noticing, retrieval and generative use.

For the analysis of Research Question 1, firstly the frequency of repetitions and the number of words which repeat at that frequency were tabulated and examined. This analysis involved all the 505 words included in the study. Secondly, one-way ANOVA was used to identify the amount of vocabulary recycling by comparing the selected course books to find out whether any significant differences occur among them. For multi-comparisons between course books, Tukey HSD Test was performed. Lastly, although it was not specifically stated among research questions, use of recycling was additionally compared between the SB and the WB for each textbook. To achieve this secondary objective, paired sample t-test was used.

Research Question 2, which is about the distribution of repetitions, was investigated in two ways: 1) Comparison of massed and spaced repetition within each textbook based on the mean of repetitions and 2) Comparisons of massed and spaced repetitions across the three course books in terms of the percentage of their uses. First analysis was done by using a paired sample t-test. Then, the differences across the books were analyzed by performing the chi-square goodness of fit test.

Finally, the use of the necessary learning conditions which is the focus of Research Question 3 was analyzed in two stages. In the first stage, noticing, retrieval and generative use was compared to each other within each textbook and for this analysis, a paired sample t-test was used. In the second stage, one-way ANOVA analysis was conducted for the comparisons of three course books in terms of required learning conditions of noticing, retrieval and generative use. In addition, Tukey HSD was applied for multi-comparisons between the textbooks.

During the present research study, level of significance was used as .05 and for all the analyses 95% confidence interval was chosen. For the calculations of the statistics and analyses, SPSS version 21.0 program was used.

3.7. Discussion of Reliability and Validity

To ensure the reliability of the results, different precautions were taken for the analyses of the research questions. For the first research question, the use of Foxit Reader Program ensured that the number of repetitions was calculated correctly. In pdf documents, this program facilitates to find each occurrence of a word which is searched and counts the total of repetitions. For the second research objective, some basic criteria were determined before the study whereas a check list was developed by using Nation's categorizations on the required learning conditions in the last research question. Inter-rater reliability was controlled for the second and third research questions which required both qualitative and quantitative analyses. To ensure inter-reliability, a second rater, who is a native speaker of English and teaches English as a foreign language as well, participated in the study. She used the basic criteria to classify the spaced and massed repetition and the same checklist used by the researcher to rate the learning conditions. When the researcher and second rater had different ratings, a third rater, who is the supervisor of the researcher, took part in the study.

Validity was also checked before and during the study. For the content validity, the researcher asked her supervisor as an expert for the appropriateness of the items in the checklist. In addition, for the analysis of the data on the last research question which was about the learning conditions, Paul Nation was contacted via e-mail and he was asked for his ideas. Unambiguous items were excluded from the study to prevent the contamination of the data. The study also ensured construct validity since it examined the data based on a theory, Pimsleur's Memory Theory, and presented the results by relating to it where the research objective was relevant.

After the explanation of the methodology which is followed in the study and discussion of reliability and validity, the next chapter will present the results obtained from the data analyses.

CHAPTER IV RESULTS

4.1. Research Question 1

In the first part of the present study, the total repetition numbers of each word in the selected course books from different publishing companies were calculated and the number of words which were repeated X times were entered in a table. In other words, the number of words was tabulated according to the repetition frequency as shown in Table 4.1.

This table revealed three findings about the recycling of words in each course book: 1) the number of words repeating below the threshold level (inadequate recycling) 2) the number of words repeating at the threshold level (ideal amount of recycling) 3) the number of words repeating above the threshold level (higher amount of recycling).

When Table 4.1 was examined carefully and each textbook was evaluated within itself in terms of vocabulary recycling, it was noticed that more than a quarter of selected words were repeated inadequately in both Face2face (27%) and Aim High (29%). In New Success, 22% of selected words were repeated below the threshold level for an ideal amount of recycling. It seemed that all of the three course books included in the study suffered from inadequate number of repetitions. It was also observed that almost half of the words below threshold level were repeated only once or twice throughout the course books by all the three publishing companies. This fact has revealed that a dramatic inadequacy in terms of vocabulary recycling has existed in all the selected textbooks for a certain number of target words which cannot be ignored. When the rate of the words repeating at the threshold level (determined in the present study as 5-20) was taken into account, it was observed that only almost half of the words were repeated sufficiently in Face2face and Aim High while New Success included more words repeated in the range from 5 to 20 (60%). Furthermore, when the number of words at the threshold level was evaluated, it seemed that there was a difference between New Success-Face2face and New Success-Aim High. To investigate whether these differences between the course books were statistically significant or not, one-way ANOVA analysis was conducted.

Table 4-1: Frequency of Repetition and the Number of Repeated Words Across the Three Course Books

# of R	Face2face		Aim High		New Success	
	# of W	P	# of W	P	# of W	P
0	0		1		0	
1	10		7		5	
2	12	27%	13	29.3%	11	22%
3	6		13		10	
4	19		13		10	
5	12		13		9	
6	12		12		10	
7	12		7		6	
8	8		9		6	
9	8		6		8	
10	5		2		4	
11	11		8		9	
12	5	51%	2	49.3%	6	61%
13	3		2		12	
14	1		7		6	
15	6		4		4	
16	0		2		6	
17	4		2		3	
18	2		1		2	
19	1		1		7	
20	1		1		3	
21	1		2		1	
22	3		1		3	
23	1		0		1	
24	0		2		2	
25	4		2		0	
26	0	22%	0	21.3%	0	17%
27	1		0		1	
28	1		2		0	
29	1		0		2	
30	0		0		1	
30+	27		25		18	
Total :	177		160		166	

Note: (Number (#), Word (W), Percentage (P)).

As shown in Table 4.2, when the means of repetition numbers of the course books were compared, ANOVA results revealed that there was a significant difference in terms of vocabulary recycling among them ($p < 0.05$). It was found that New Success had the highest mean for repetition number ($\bar{X} = 11.56$), which was

followed by Face2Face (\bar{X} =9.60) whereas Aim High had the lowest mean for recycling (\bar{X} =9.49).

Table 4-2:One-Way ANOVA Test Results for the Comparison of Recycling Across the Three Course Books

Descriptives									
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	
					Lower Bound	Upper Bound			
Aim High	76	9.49	3.86	.44	8.61	10.37	5.00	19.00	
Face2Face	90	9.60	3.87	.41	8.79	10.41	5.00	20.00	
NewSuccess	99	11.56	4.40	.44	10.68	12.43	5.00	20.00	
Total	265	10.30	4.17	.26	9.79	10.80	5.00	20.00	

As shown in Table 4.3., the results of Tukey HSD Multi-comparison Test indicated that a significant difference occurred between New Success (\bar{X} =11.56) and Aim High (\bar{X} =9.49) ($p<0.05$). Furthermore, the difference between New Success (\bar{X} =11.56) and Face2Face (\bar{X} =9.60) was also found to be statistically significant ($p<0.05$).

Secondly, the selected words from all course books were analyzed within themselves based on their number of repetitions by comparing their Student's Books (SBs) and Workbooks (WBs). The results from the paired sample t-test were shown in Table 4.4. It was revealed that SB and WB differed significantly in Face2face and Aim High in terms of recycling of words ($p<0.05$). However, no significant difference existed between SB and WB in New Success with respect to vocabulary recycling ($p>0.05$). Although it seemed that this was an unfavorable condition as statistically, it was the reverse when vocabulary acquisition was pedagogically taken into account. In other words, repetitions of words were almost equally distributed between SB and WB in New Success, which was an advantage for the course book because neither component dominated over the other. In addition, WBs are used to make some more practice on the recently learned items. Therefore, they should contain as much vocabulary as SBs to reinforce these items.

Table 4-3: The Results of Tukey HSD Multi-Comparison Test for the Recycling Differences Between the Course Books

		Sum of Squares	df	Mean Square	F	Sig.	Significant Difference (TUKEY HSD)
Recycling	Between Groups	250.418	2	125.209	7.557	.001	NewSuccess-AimHigh , NewSuccess-Face2Face
	Within Groups	4341.031	262	16.569			
	Total	4591.449	264				

Another reason for the requirement of equal distribution of vocabulary elements is that WBs are usually assigned as homework for students by their teachers. Therefore, a balanced distribution of recycling between SB and WB will ease to achieve these functions of WBs. According to the results, in Aim High, the mean of repetition number in SB was 5.61 whereas it was 3.38 in WB.

Table 4- 4: Paired Sample t-test Results for the Repetition Comparison Between Student's Book and Workbook of Each Course Book

		Mean	N	Std. Deviation	t	df	p
Aim High	Student'sbook	5.6184	76	2.70785	5.058	75	.00
	Workbook	3.8684	76	2.15618			
Face2Face	Student'sbook	6.5333	90	3.04719	8.948	89	.00
	Workbook	3.0667	90	2.22246			
New Success	Student'sbook	5.9293	99	3.30199	.662	98	.51
	Workbook	5.6263	99	3.02569			

This finding showed that the selected words tended to repeat more in SB rather than in WB. Likewise, in Face2face, the selected words were encountered twice more frequently in SB (6.53) than in WB (3.06). From this aspect, both Aim High and Face2face have drawbacks because the repeated words are spread in an unbalanced way between their SBs and WBs. Since these WBs do not focus on adequate vocabulary practice as much as SBs do, learners are limited to classroom teaching and the encounters in SBs in terms of their exposure to newly presented items. Therefore, it can be said that WBs do not adequately achieve their goals which is to support what is taught in SBs.

4.2. Research Question 2

After examining vocabulary recycling in the three course books, the types of repetitions were classified as massed or spaced for each word which repeated from 5 to 20 times in the textbooks. These data were used in Research Question 2 to deal with the distribution of repetitions in two ways: 1) Massed and spaced repetition were compared within each textbook based on the means of the repetition numbers by using a paired-sample t-test (Table 4.5.) and 2) For the comparisons across all the textbooks, percentages of massed and spaced repetitions within each course book were taken into account by conducting a chi-square goodness of fit test (Table 4.6.).

The results of the paired sample t-test indicated that a significant difference occurred between the means of spaced repetitions ($\bar{X}=10.91$) and massed repetitions ($\bar{X}=7.17$) in Aim High ($p<0.05$). This meant that spaced type of repetitions significantly tended to have higher number of repetitions than massed type of repetitions. Similarly, based on the distribution of repetition in units, a significant difference was found between spaced types of repetitions ($\bar{X}=10.72$) and massed type of repetitions ($\bar{X}=8.37$) in Face2face.

Table 4-5: Paired Sample t-test Results for the Comparison of Spaced and Massed Repetition for Each Course Book

		N	Mean	Std. Deviation	t	df	P
Aim High	Spaced	47	10.9149	3.88883	5.146	74	.000
	Massed	29	7.1724	2.45050			
Face2Face	Spaced	47	10.7234	4.24624	3.056	88	.003
	Massed	43	8.3721	2.99224			
New Success	Spaced	67	12.1194	3.98300	1.722	97	.091
	Massed	32	10.3750	5.02734			

However, in New Success no significant differences were identified between the means of these two types ($p>0.05$). Therefore, it can be concluded that the number of repetitions has been found to be almost equal in terms of the use of spaced and massed repetition in this textbook. However, spaced repetition should be

preferred to massed repetition in vocabulary teaching due to its pedagogical advantages. Massed repetition should be limited to some specific teaching goals about vocabulary, namely pronunciation and spelling. On the other hand, when all the course books were compared to each other in terms of the distribution rate within each book by conducting a chi-square goodness of fit test, the results indicated that no significant differences existed across the textbooks ($X^2=4.775$, $sd=2$, $p>0.05$). However, when table 4.6. was examined, it was seen that New Success had the highest rate of spaced repetition (67%) whereas Face2face included the lowest rate in this type of repetition (52.2%). On the contrary, massed repetition was found the most in Face2face with the percentage of 47.8 while it was observed the least in New Success with the percentage of 32.3. Nevertheless, these differences across the textbooks were not statistically significant ($p>0.05$).

Table 4-6: The Results of Chi-Square Goodness of Fit Test for the Comparisons Across the Course Books

		Aim High		Face2Face		New Success	
		Count	Column N %	Count	Column N %	Count	Column N %
SM	Spaced	47	61.8%	47	52.2%	67	67.7%
	Massed	29	38.2%	43	47.8%	32	32.3%

$X^2=4.775$. $sd=2$. $p>0.05$

4.3. Research Question 3

The selected words were investigated in terms of necessary learning conditions and they were categorized as noticing, retrieval and generative use. First, these categorizations were examined within each textbook separately by comparing the number of two conditions as noticing-retrieval, retrieval-generation and noticing-generation as shown in paired sample t-test results in Table 4.7. Next, all the textbooks were compared to each other on the basis of noticing, retrieval and generation separately and ANOVA results were indicated in Table 4.8.

Table 4-7: Paired Sample t-test Results for the Comparison of Learning Conditions for Each Course Book

		Mean	N	Std. Deviation	t	df	p
Aim High	N	1.3421	76	.50471	8.428	75	.000
	R	3.9737	76	2.62284			
	N	1.3421	76	.50471	2.693	75	.009
	G	2.2368	76	2.80413			
	R	3.9737	76	2.62284	3.595	75	.001
	G	2.2368	76	2.80413			
Face 2 Face	N	1.4333	90	.71971	8.133	89	.000
	R	4.2778	90	3.35880			
	N	1.4333	90	.71971	.549	89	.585
	G	1.3111	90	1.96968			
	R	4.2778	90	3.35880	6.858	89	.000
	G	1.3111	90	1.96968			
New Success	N	1.7576	99	.83411	8.589	98	.000
	R	4.3838	99	3.15487			
	N	1.7576	99	.83411	2.742	98	.007
	G	2.6465	99	3.16006			
	R	4.3838	99	3.15487	3.690	98	.000
	G	2.6465	99	3.16006			

After the uses of selected words were examined and learning conditions were classified in three categories, they were compared in a paired sample t-test analysis (Table 4.7).The results of this analysis for Aim High showed that there was a significant difference in the means not only between noticing (\bar{X} =1.34) and retrieval (\bar{X} =3.97) but also between noticing (\bar{X} =1.34) and generation (\bar{X} =2.23) ($p<0.05$). When noticing is compared to retrieval and generation, it is not a disadvantage for the course books to have less noticing than the other two conditions since it can be enough to draw attention to each word once. When noticing is taken into account, a noticing degree at 1.00-2.00 can be accepted as the ideal noticing threshold.

However, as Nation stated in our correspondence, it can be said that for each learning condition there is a common rule: the more a learning condition is used, the better results will occur in learning. Furthermore, the findings revealed that Aim High included significantly more retrieval use ($\bar{X}=3.97$) than generative use ($\bar{X}=2.23$) in terms of necessary learning conditions ($p<0.05$). In an ideal course book, it is more preferable to have more retrieval use to facilitate vocabulary learning. Hence, it can be stated that Aim High is good at providing this necessary condition in terms of retrieval for vocabulary acquisition.

Similarly, when the selected words from Face2face were compared based on the use of learning conditions, statistically significant results were obtained from the paired sample t-test analyses between the means of noticing ($\bar{X}=1.43$) and retrieval use ($\bar{X}=4.27$) ($p<0.05$). However, such a difference did not occur between the use of noticing ($\bar{X}=1.43$) and generation ($\bar{X}=1.31$) ($p>0.05$). On the other hand, it was found that the means of retrieval uses ($\bar{X}=4.27$) were significantly higher than generative use ($\bar{X}=1.31$) ($p<0.05$). These results indicated that although Face2face achieves to provide two necessary learning conditions (noticing and retrieval), it fails to include a rich amount of generative use which is less than even the noticing level.

Lastly, the results of the analysis indicated that the means of the selected words from New Success differed significantly not only between noticing ($\bar{X}=1.75$) and retrieval ($\bar{X}=4.38$) but also between noticing ($\bar{X}=1.75$) and generative use ($\bar{X}=2.64$) ($p<0.05$). Moreover, it appeared that there was a significant difference between the means of retrieval ($\bar{X}=4.38$) and generation ($\bar{X}=2.64$) ($p<0.05$). In the light of these results, it can be stated that it seems that there are not any problems with noticing and retrieval use in New Success. Furthermore, the course book also seems to supply sufficient generative use when the means are taken into consideration.

In addition to analysis within each course book in terms of required learning conditions (Table 4.7.), the selected three textbooks were also compared to each other in an ANOVA data analysis with regard to noticing, retrieval and generative use (Table 4.8).

Table 4-8: One-Way ANOVA Test Results for the Comparison of the Three Course Books in terms of Learning Conditions

Descriptives									
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	
					Lower Bound	Upper Bound			
N	Aim High	76	1.34	.50	.06	1.23	1.46	1.00	3.00
	Face2Face	90	1.43	.72	.08	1.28	1.58	1.00	5.00
	NewSuccess	99	1.76	.83	.08	1.59	1.92	.00	4.00
	Total	265	1.53	.73	.05	1.44	1.62	.00	5.00
R	Aim High	76	3.97	2.62	.30	3.37	4.57	.00	10.00
	Face2Face	90	4.28	3.36	.35	3.57	4.98	.00	14.00
	NewSuccess	99	4.38	3.15	.32	3.75	5.01	.00	15.00
	Total	265	4.23	3.08	.19	3.86	4.60	.00	15.00
G	Aim High	76	2.24	2.80	.32	1.60	2.88	.00	13.00
	Face2Face	90	1.31	1.97	.21	.90	1.72	.00	13.00
	NewSuccess	99	2.65	3.16	.32	2.02	3.28	.00	12.00
	Total	265	2.08	2.75	.17	1.74	2.41	.00	13.00

The results which were obtained from ANOVA analysis revealed that the three course books differed significantly in terms of noticing condition ($p < 0.05$). According to the results of Tukey HSD multi-comparison test, significant differences were found between New Success ($\bar{X} = 1.76$) and Aim High ($\bar{X} = 1.34$) ($p < 0.05$). Likewise, it was observed that New Success ($\bar{X} = 1.76$) and Face2Face ($\bar{X} = 1.43$) differed significantly when they were compared in terms of noticing condition ($p < 0.05$), in favor of New Success in both conditions. Although New Success has more favorable conditions, it can be observed that all of the books have enough noticing conditions.

Interestingly, no significant results were found among the three textbooks when they were compared in terms of their means of retrieval use ($p > 0.05$). In other

words, all the course books had similar means of retrieval conditions in the repeated words although they were distinct from one another in their uses of noticing.

Table 4-9: The Results of Tukey HSD Multi-Comparison Test for the Learning Conditions Differences Between the Course Books

		Sum of Squares	df	Mean Square	F	Sig.	Significant Difference (TukeyHSD)
N	Between Groups	8.651	2	4.325	8.496	.000	NewSuccess-AimHigh , NewSuccess-Face2Face
	Within Groups	133.387	262	.509			
	Total	142.038	264				
R	Between Groups	7.541	2	3.771	.396	.673	
	Within Groups	2495.417	262	9.524			
	Total	2502.958	264				
G	Between Groups	86.839	2	43.419	5.945	.003	NewSuccess-Face2Face
	Within Groups	1913.652	262	7.304			
	Total	2000.491	264				

Lastly, the result of ANOVA analysis indicated that significant differences were observed among the three course books in their generative uses ($p < 0.05$). The results of Tukey HSD multi-comparison test, which was conducted to identify the differences between the textbooks showed that only New Success and Face2face differed significantly in favor of New Success when they were compared based on their generative uses in the repeated words. Despite this single difference, when the means of generation is regarded, only New Success seems to include better amount of generation among the three books. Hence, it can be concluded that all the selected textbooks, particularly Face2toface and Aim High, should be enhanced in terms of generative use.

CHAPTER V DISCUSSION

The purpose of the current study was to examine and analyze the three selected intermediate English course books in terms of vocabulary recycling, types of repetition used in the vocabulary exercises and the required learning conditions.

In this section of the research, the results of data analyses and their implications for second language vocabulary learning will be discussed in detail in relation to research questions which are determined at the beginning of the study.

5.1. Research Question 1

Do the selected intermediate course books supply recycling of words at a threshold level to promote vocabulary learning?

In the present study, vocabulary recycling was examined in three stages in the selected intermediate course books. In the first stage, to see the overall recycling in the textbooks, the frequency of repetitions and the number of repeated words at that frequency were tabulated in three different levels. Secondly, each course book was inspected within itself by comparing its SB and WB. Lastly, the selected three course books by different publishing companies were compared among themselves to investigate the recycling of the selected words.

During the examinations in the first stage, the threshold level for ideal amount of recycling was determined as 5 repetitions. The previous studies indicated different results ranging from 5 to 10 for the number of necessary encounters for a word to be learned (e.g. Webb 2007; Peters, 2014). While determining the threshold level, two points were taken into consideration. Firstly, in printed materials such as course books, it may be a challenging job to repeat each target word more than 5 times. When the spacing of repetition was also regarded, it will be a much harder work for material developers and publishing companies to abide by this threshold level. Secondly, the last criterion for setting the threshold level was based on the results of the previous studies. When the earlier studies were reviewed, they indicated that the lowest number for the necessary repetition was 5, though more ideal numbers were also cited frequently (e.g. six repetitions, Rott, 1999; seven repetitions, Kachroo, 1962; ten repetitions, Webb, 2007).

After the rationale behind the determined threshold level has been explained, the results of the vocabulary recycling will be discussed stage by stage as stated at the beginning of this section.

5.1.1. Overall vocabulary recycling in the selected course books

In Table 4.1, each course book was analyzed in terms of the frequency of repetitions and the numbers of repeated words at that frequency were shown in three levels:

- 1) Inadequate recycling (below the threshold level)
- 2) Ideal amount of recycling (at the threshold level)
- 3) Higher amount of recycling (above the threshold level)

When the whole table was examined, it seemed that all of the three course books included ideal or higher amount of recycling in a very high rate (approximately 75%). However, this does not mean that they achieve the recycling of the words effectively since the remaining part of the words is not so low to be ignored. Especially, when it is remembered that the words in the study were selected among the target words which were listed in the vocabulary lists by the course books and also compared with the most frequent 2,000 words in English, the results signaled that the textbooks failed to recycle all of the targets words at the threshold level. When vocabulary learning is approached pedagogically, learners are supposed to acquire all the target words. Therefore, it can be argued that the selected course books do not provide the necessary conditions for the recycling of all of the target words. One of the possible reasons for the failure of vocabulary recycling may be the overload of vocabulary in the course books. When the total number of the words in the textbooks was calculated, it was observed that they contained excessive numbers of words (Aim High: 1185; New Success: 2179; Face2face: 810). At this point, it should be underlined that these numbers are not total number of running words in the course books; they are the number of the words which were listed in their vocabulary lists. These high numbers of words in the course books may have caused them fail in vocabulary recycling. The words included in the word lists should not be so many since some teachers, especially novice teachers, may suppose that all the words which are listed should be taught. Therefore, course book writers should pay

attention to include only the target words in their word lists and they should also be careful about the number of the target words which are aimed to be taught.

When the number of the words which were recycled inadequately was taken into account in Table 4.1, it was observed that almost half of them were encountered only once or twice in the course books (Aim High: 21; Face2face: 28; New Success: 16 words). To acquire a word, it will not probably be enough to meet one or two occurrences of that word; it will at best give an opportunity for learners to notice that word. In table 4.1, interestingly, it was also seen that the number of repetition for one word was zero. This meant that this word was not encountered at all although it was included in the word list. The reason for this situation may be related to the presentation of another form of the target word. In other words, it was probably planned to be presented as another form of the target word (i.e. adjective, noun or adverb); however, it was forgotten in the vocabulary exercises; or it was the expected answer in the vocabulary exercise and therefore, it was not encountered during the search for the occurrences of the words.

The words which were repeated at the threshold level composed almost half of the selected words in Aim High and Face2face while it was higher in New Success (61%). Therefore, it can be suggested that New Success seems better than both Aim High and Face2face in terms of vocabulary recycling. Moreover, Table 4.1 showed that when the frequency of repetition gets higher, the number of words that are repeated at that frequency usually gets lower (though not regularly), especially after 14-15 times. This case is much more prominent when the words which were repeated at a higher amount of recycling level were taken into account. The table showed that there were only a few words at each repetition frequency for the last level, which is quite normal at these frequency levels.

After it was seen that there was a difference in terms of vocabulary recycling among the textbooks, it was investigated whether this difference was statistically significant or not. In the second stage, the possible reasons for this difference will be discussed.

5.1.2. Comparison of vocabulary recycling among the course books

After the comparison analysis of the course books through one-way ANOVA test, the results revealed that the course books differed significantly in terms of vocabulary recycling. According to the results of Tukey HSD multi-comparison test, the differences occurred between New Success and Aim High and also between New Success and Face2face (Table 4.3.). These differences which were in favor of New Success may stem from the extra word lists included in New Success. When the textbooks were compared, it was noticed that New Success had extra word lists and extra vocabulary exercises related to these word lists *at the end of each unit* in addition to the word list at the end of the textbook. When Table 4.2 and Table 4.4 are examined simultaneously, it will be noticed that the differences are due to the number of repetition in WB, rather than SB. This means that New Success has an advantage in terms of vocabulary recycling provided in its WB. When the locations of the word lists at the end of units and extra vocabulary exercises related to these word lists were checked by the researcher, it was discovered that these sections were included in WB. This situation seems to support the researcher's beliefs about the differences between New Success and the other two textbooks. On the other hand, the differences among the course books may also result from their general approaches to vocabulary recycling or the emphasis which they place on the recycling of the words. That is, New Success emphasizes vocabulary recycling more than Aim High and Face2face. To illustrate this, in the Teacher's Book of New Success it is clearly claimed that the book pays attention to revision and recycling of lexis (p.7). However, in Aim High, it is proposed that a specific part called "The Activate Section" recycles the vocabulary from the reading page (Teacher's book, p.5).

After the examinations of course books by comparing them with each other, in the next stage each course book will be discussed within itself based on their SB and WB.

5.1.3. Comparison of vocabulary recycling between SB and WB within each course book

To investigate the recycling of the words within each course book, their SB and WB components were compared to one another with a paired sample t-test. Significant differences were found between SB and WB not only in Aim High but also in Face2face in favor of their SBs. Although this difference seems to be a favorable condition statistically, it cannot be pedagogically claimed that it is an advantage for these textbooks since a balanced distribution is required between SBs and WBs. When course books are evaluated as a whole, WBs are supplementary for SBs. Therefore, there should be a balance in treating the language elements including vocabulary. Furthermore, the purpose of using a WB is usually to provide extra practice for the newly learned items. Hence, it can be said that including less amount of repetition in a WB than its SB is against the idea of exploiting a WB. On the other hand, it will not be the right to place the whole emphasis on the WBs for vocabulary recycling since they can be usually assigned as homework by the teachers for more practice. If it is considered that some students may not do their homework, they cannot benefit from the vocabulary recycling supplied by the WB. Therefore, it seems that there is a requirement of balanced distribution between SBs and WBs.

When the means for SB and WB were examined for the two course books, the difference seemed much bigger in Face2face when compared to Aim High. This difference may stem from the number of the pages in each unit in the WB of Face2face. Although the other two textbooks included an equal number of pages for each unit in their SB and WB, Face2face contained 3 pages less than its SB, which is a drawback in terms of space allocated to the practice of the recently learned items. When New Success was analyzed in terms of the repetition of the words based on its SB and WB, no significant results were founded between these two components, which is a favorable condition for this course book though it seems that it is a disadvantage statistically.

After the adequacy of recycling, in the next section, types of repetitions (spaced and massed) and their implications for vocabulary learning pedagogy will be discussed.

5.2. Research Question 2

What types of repetition (spaced or massed) are used in the selected course books for recycling of vocabulary?

This part of the analysis is based on the quality of repetition whereas so far the study has dealt with the quantity of repetition. To analyze the types of repetition in detail in Research Question 2, rather than examining all the words included in the study, the words which repeated from 5 to 20 times were investigated in terms of their distribution through the units of the course books. Only the words which repeat at this interval were examined in this part of the analysis because a learner needs at least 5 encounters with a word to learn it as it was stated in Section 2.2. In addition, 20 had been accepted as the maximum level for this analysis since the number of words which repeat above 20 decreased dramatically.

The analysis for the types of repetition was performed in two distinct ways: 1) After each course book was examined within itself and the occurrences of a word was categorized as spaced or massed repetition, the means of these two categories were compared. 2) For the comparisons among the three textbooks, the percentages for spaced and massed repetitions were calculated based on the number of their occurrences in each textbook and the percentages of the course books were compared to each other.

5.2.1. Comparison of spaced and massed repetition in each course book

In this part of the analyses, significant differences were obtained for Aim High and Face2face between the means of spaced and massed repetition in favor of spaced repetition. These results revealed that both course books tended to include higher numbers of repetition for spaced repetitions based on the means of the recurrent words. In other words, these findings indicated that not only Aim High but also Face2face place more emphasis on spaced type in terms of the amount of repetition. Although these differences were much bigger in Aim High ($\bar{X}=10.91$ and $\bar{X}=7.17$) than Face2face ($\bar{X}=10.72$ and $\bar{X}=8.37$), the crucial point is related to how high the mean of spaced repetition is in each individual textbook, rather than the size of the differences between spaced and massed repetition. On the other hand, New Success did not differentiate between spaced and massed repetition significantly,

which meant that it emphasized these two different types almost equally. However, this equality in terms of the amount of the recycling created an unfavorable condition for New Success because it is known from the previous studies that spaced repetition has a stronger effect in vocabulary learning (Bloom & Schuell, 1981; Schutze, 2015). However, this does not mean to deny completely the influence of massed repetition on vocabulary learning. The use of spaced or massed repetition should be determined according to the teaching goal of the vocabulary items. It will be more appropriate to use massed repetition while teaching the word for the first time. Moreover, it will be more useful to prefer massed repetition while teaching the spelling and the pronunciation of a word since these two aspects of words require lots of drilling at a time to be reinforced. Due to its nature which enables repeated encounters for a word at one time interval, massed repetition provides the necessary conditions, if not all, for both the practice and acquisition of spelling and pronunciation. On the other hand, there are many aspects which should be learned about a word except its spelling and pronunciation and these other aspects, such as word parts, associations and collocations, necessitate much deeper knowledge about the word. However, massed repetition cannot supply these deeper requirements for the different aspects with repeated encounters which come after another. At this point, it seems that using spaced repetition will be much more effective to promote vocabulary learning. The distributed disposition of spaced repetition will create an opportunity to add a new aspect of the word at each time rather than focusing on only one aspect. In this way, learners will have fewer learning burdens to be acquired at a time although they will have more knowledge about the word in the long run. Moreover, as stated before, knowing a word does not necessarily mean to know only its meaning, spelling or pronunciation. On the contrary, it involves many aspects which should be learned preferably at different times. Therefore, as a consequence, it can easily be said that it would be more appropriate to use more spaced repetition than massed repetition in vocabulary recycling.

5.2.2. Comparison of the course books in terms of spaced and massed repetition based on their distribution rate

In the study, the types of repetition were also examined by comparing the course books with each other based on their percentage of the words which were

recycled in massed and spaced forms. The results revealed no significant differences among the textbooks in terms of their preference for one type. This meant that all the three course books were similar in their distribution rate with respect to the types of recycling they included. Although it is not possible to determine a distribution level for spaced and massed repetition, it can be suggested that spaced repetition should be preferred more frequently than massed in course books for the recycling of the new words. Thus, not only the quality of the repetition will be enhanced but also the acquisition of the new vocabulary items will be facilitated and strengthened.

When the distribution of the spaced and massed repetition is taken into consideration in the light of the points discussed above, it can be said that none of the selected textbooks provides adequate recycling in spaced repetition. Although the textbooks achieve spaced recycling to a certain degree and seemingly more than massed type, the emphasis which is given on massed and spaced repetition is very close in terms of their rates (Table 4.6.). It can be concluded that all of the three course books should increase the number of the words which are recycled in spaced repetition to foster vocabulary acquisition more effectively.

5.3. Research Question 3

To what extent do the selected course books provide three necessary learning conditions (noticing, retrieval and generative use) to promote vocabulary learning?

The analysis for the required learning conditions was performed in two different ways. Firstly, each textbook was investigated separately within itself by comparing the three necessary conditions in paired combinations. Next, the three selected course books were compared to each other in terms of each learning condition, respectively noticing, retrieval and generative use. In both analyses, significant differences were obtained from the results. In this section of the research, the implications of the results will be discussed in two stages.

5.3.1. Use of the required learning conditions within each course book

In vocabulary acquisition, as in other types of learning, the role of the required learning conditions is crucial. Although it is not possible to claim that one of these conditions is more important than the others, it can be said that there is a

sequence among them in which the previous one is a prerequisite for the next one. Noticing is the first stage in learning and it is followed by retrieval whereas the last step in the learning process is generative use as also noted by Nation (2007, p .63).

When the results are examined in terms of the relationship between paired conditions such as noticing-retrieval, retrieval-generation and noticing-generation, it seems that significant results have occurred between them in all the three course books. Firstly, when noticing and retrieval conditions were compared, significant differences were found in favor of retrieval within each course book. This result provides an advantage for each textbook in terms of the required learning conditions since the means of the retrieval condition are higher than the means of noticing. Though a threshold level does exist for neither noticing nor retrieval in the literature, it can be suggested that more retrieval than noticing is required for vocabulary learning. It may be possible to draw attention to a word with only one, at times two encounters when a noticing technique is used. However, for the retrieval of the words, one meeting with the words is not sufficient because it is crucial to retain the previously learned knowledge in retrieval. Therefore, it can be proposed that a good course book should supply more retrieval opportunities than noticing for vocabulary acquisition. Still, it should be underlined that a minimum noticing condition is also a prerequisite for an ideal course book. While the researcher believes that an interval between 1.00 and 2.00 can be a threshold level for noticing, she considers that it is not easy to determine a minimum level for the retrieval condition unless more research is carried out on the learning conditions. However, with regard to the amount of retrieval specifically and all the learning conditions in general, it can be said: “the more the better”. In the light of discussed points, it seemed that all of the selected course books supplied good opportunities for noticing and retrieval; however, vocabulary learning can be promoted in these course books by increasing the retrieval conditions.

The second analysis on the selected course books was related to the comparison of retrieval and generative use. In vocabulary acquisition, both of these learning conditions are very crucial. As stated before, a threshold level was not determined for any of the necessary learning conditions in the previous studies. Furthermore, a leveled sequence among them was not suggested, either. In other

words, no study proposed that course books should provide more retrieval than noticing or the reverse. However, it would be appropriate to suggest that more retrieval than generative use should be supplied in the textbooks since retrieval reinforces the acquisition of the core meaning of a word. When enough retrieval for the acquisition of words is not provided, learners may not have the required knowledge for the next step, which is generative use.

When retrieval and generation conditions were examined and compared in each textbook separately, it was found that retrieval condition was significantly higher than generative use in all the course books. These results which have been obtained from the selected course books provide an advantage for them since retrieval condition seems to be more crucial than generative use in terms of vocabulary acquisition. In the process of learning, it is important to add something new to previously learned items. However, if the item which has been learned before is not reinforced enough and is not completely acquired, there may be no use in attempting to build up novel pieces on it. At this point, retrieval of words supplies the requirements to reinforce the learned items and focuses on the main aspect of the word, which is usually its core meaning. On the other hand, generative use emphasizes the other aspects and constructs new contexts for the word. It can be said that the primary purpose of vocabulary learning is achieved with the retrieval condition whereas the secondary goals are supported with generative use. Therefore, it is speculated that textbooks will be able to promote vocabulary acquisition more effectively if they provide more retrieval than generation in accordance with the learning goals.

The course books were also compared based on their noticing and generation conditions. The results revealed that generative use was used significantly more than noticing in Aim High and New Success, which implied that these textbooks provided favorable circumstances for vocabulary acquisition. However, no significant differences were found in Face2face when noticing and generative uses were compared. This result may have been obtained due to two different reasons: Either noticing condition may have been used so frequently that it was very close to generation, or the course book may have provided so low generation that it was nearly in the same amount as noticing. When the means of the generative use and

noticing were examined, it was understood that the result stemmed from the second option. In other words, in Face2face, it was found that generation ($\bar{X}=1.31$) was too low and very close to noticing ($\bar{X}=1.43$) in terms of amount. Although it was not a big difference, noticing techniques were used more frequently than generative use in Face2face, which was a drawback for vocabulary learning. Contrarily, a good quality textbook should provide more generation than noticing condition because it may be sufficient to see a word once to notice it; however, it may not be possible to learn new aspects of a vocabulary item with only one encounter. After the relative comparison of noticing and generation, it should not be forgotten that adequate retrieval is a prerequisite for generative use for the acquisition of words.

5.3.2. Comparison of the course books based on each required learning condition

After the analyses within each course book in terms of learning conditions, the textbooks were also compared among themselves with respect to each specific learning condition. While analyzing the course books, the purpose of the comparison among them was not to select the best one; but, through the selected course books, to investigate whether the required learning conditions are paid attention while course books are being prepared. In other words, textbooks were compared to find out the differences among them and to have an idea about the approaches of the course books to the necessary learning conditions.

First of all, noticing conditions were examined among the selected textbooks and some significant differences were found between them. Based on the means of noticing condition, New Success ($\bar{X}=1.76$) and Aim High ($\bar{X}=1.34$) and also Face2face ($\bar{X}=1.43$) and New Success ($\bar{X}=1.76$) differed significantly. Despite the statistical differences, it seems that the means of the course books are very close to each other and their noticing levels are at the threshold level (1.00-2.00) which is suggested by the researcher of the current study. Therefore, it can be concluded that all the selected course books provide adequate noticing learning condition for vocabulary acquisition. Although the selected course books have similarities based on the quantity of the noticing condition, qualitative examinations on noticing have shown that some differences exist in terms of noticing techniques which are used in them. While Aim High and New Success prefer using highlighted words in reading

passages for vocabulary teaching, Face2face presents the new words in colored bold letters. New Success focuses on yellow for highlighting and systematically uses it in each unit whereas Aim High prefers using different background and highlighting colors in each unit. Except the reading passages where vocabulary teaching is aimed, all the selected course books frequently place the target words in a box to draw attention to them in specific vocabulary sections as well as some other noticing techniques such as listing the words and giving definitions. It is difficult to discuss the effectiveness and superiority of these noticing techniques for vocabulary acquisition since specific research on the required learning condition is very scarce. Some studies have been carried out to investigate the effect of some techniques such as highlighting and bolding; however, these studies should not be included among the studies on learning conditions since these techniques were not investigated in a hierarchical way. In other words, they were not handled in relation to one another and in a sequence of noticing, retrieval and generative respectively. Moreover, these studies mainly focused on vocabulary in reading texts rather than vocabulary learning in general.

During the analyses, the textbooks were also compared to each other on the basis of the use of retrieval. The results have indicated that no significant differences exist among the course books. In other words, it seems that all the three textbooks have similar attitudes towards using retrieval conditions in vocabulary teaching. Furthermore, it can be said that they provide a good amount of retrieval of words for the learners. Although a threshold level for retrieval has not been suggested in the literature, the researcher believes that an interval between 3.50 and 4.50 can be the minimum level for a good amount of retrieval as the mean of the words. While suggesting this threshold level, the researcher took the threshold level for recycling (which is suggested in the literature as “at least 5 encounters” with a word) into consideration as well as her observations in her teaching experience and her intuitions which have occurred after the study. If it is assumed that a word is repeated five times for vocabulary learning, one of the five encounters must be for “noticing” condition. Therefore, it seems that more than three encounters may be a good level for retrieval. To be able to provide generative use for vocabulary acquisition, it may be better to increase the number of repetition and to exceed the “5 encounters” threshold rather than including generation in these 5 encounters. When the selected

course books have been evaluated in terms of the retrieval conditions based on the discussed points, it can be stated that they supply adequate retrieval use for new vocabulary. The success of the textbooks in the use of retrieval use can be explained with the importance which they placed on recycling. If it is remembered that Research Question 3 has been investigated among the words which repeat at the five-encounter threshold level, it is not surprising that the means for retrieval condition was approximately 4 (Aim High: 3.97; Face2face: 4.28; New Success: 4.38). On the other hand, the words which repeat below the threshold level will not be able to provide sufficient retrieval automatically. Hence, it can be said the three selected course books should be revised and improved in terms of retrieval. This can be achieved by starting from the enhancement of recycling since adequate recycling is a precondition for a good level of retrieval.

Lastly, generative use was investigated by comparing the course books among themselves. The result of the analyses demonstrated that New Success and Face2face differed significantly whereas Aim High and New Success were similar in terms of generative use. Generation is a crucial condition since it provides the opportunity to meet different aspects of a word differently from the retrieval condition. In vocabulary learning, it is important to acquire some new information about a word after ensuring that core meaning is obtained. Therefore, while the scale of generation is determined, it may be reasonable to decide on a level which is higher than noticing; however lower than retrieval. Regarding the suggested levels above for noticing (1.00-2.00) and retrieval (3.50-4.50), it may be recommended that a good course book should supply an average generation of 2.00-3.00 for vocabulary acquisition. When the selected textbooks have been analyzed at this interval, it can be concluded that Face2face ($\bar{X}=1.31$) does not provide enough generation. Whereas New Success ($\bar{X}= 2.65$) seems to supply good opportunities in terms of quantity, Aim High ($\bar{X}=2.24$) includes a sufficient level of generation, though it can be improved.

When all the three necessary learning conditions are taken into account at the same time, the selected course books present good conditions for noticing. However, they should be enhanced in terms of retrieval and generative use for vocabulary learning. A word of caution is warranted here: The results and conclusions drawn

from the present study cannot be asserted to be absolute. On the contrary, the study aimed to develop a model based on the previous studies and presented the results according to this model while attempting to go a step further with its own findings. It should be once more emphasized that more research is needed in this area to be able reach more reliable and valid results.



CHAPTER VI CONCLUSION

This chapter consists of three main sections. The first section explains the conclusions drawn from the results and the second section presents a suggested framework for vocabulary teaching through course books in the light of discussion and conclusion of the results. Lastly, the limitations of the current study are discussed and some recommendations for future research are presented.

6.1. Conclusion

The present study aimed to investigate vocabulary learning in the three selected intermediate English course books in terms of vocabulary recycling, types of repetition (spaced or massed repetition) and the three required learning conditions as noticing, retrieval and generative use. During the investigation of the research questions, significant results were obtained from the analyses.

With respect to the first research objective, the tabulated results indicated that each selected course book provided partial vocabulary recycling for the selected words. In other words, the course books included words which were repeated both sufficiently and insufficiently. The categorical analysis of the words in terms of vocabulary recycling showed that each course book had its own weaknesses and strengths. All the three course books included words which were repeated below the threshold level (inadequate recycling), at the threshold level (adequate recycling) and above the threshold level (higher amount of recycling). They provided adequate and higher amount of recycling at a high rate (approximately 75%). However, when it is remembered that the selected words have been among the target words of the textbooks, the percentage of inadequately repeated words (approximately 25%) cannot be underestimated. Therefore, it can be said that the course books suffer from insufficient number of repetitions and they need to be enhanced in terms of vocabulary recycling. Rather than certain amount of words, each target word in the textbooks should be provided with enough repetition for effective vocabulary acquisition. Through comparison of the selected course books, vocabulary recycling was also investigated to have an idea about the general attitude of intermediate English textbooks, rather than selecting the best one among them.

Although they seem to have similar means of repetition numbers for the words which occur between 5-20 interval, some significant differences were found out among the textbooks. New Success was superior to Aim High and Face2face in terms of recycling of the words at this repetition interval. It has been discussed that this superiority may stem from the presentation of vocabulary lists in different formats and the extra vocabulary exercises which are provided by the course book in addition to the strong emphasis of the textbook on recycling. The last important finding about the repetition of words was related to Student's Book (SB) and Workbook (WB) components of the course books. The comparison analysis of each course book indicated that recycling of the words in the two textbooks (Aim High and Face2face) was not distributed in a balanced way between the SB and WB whereas one of them was almost equal with this respect. It was observed that the SBs dominated over the WBs in recycling. Since these components are supplementary for each other and workbooks are usually used for extra practice, material writers should pay attention to include a balanced distribution between them.

With regard to the second research question, the results showed that the two of the course books involved significant differences between the means of the words which repeated in spaced and massed forms while one of them did not differentiate between the means of these two types. It was seen that spaced type of repetitions tended to have higher means when compared to the means of massed repetition. This situation is an advantage for the textbooks because spaced repetition, which is commonly accepted as stronger for the recycling of the words, is emphasized more with higher number of occurrences. However, when the means of massed repetition was also examined (approximately 7-8 times), it was noticed that this type of repetition, which is beneficial in very limited areas, was exploited excessively. The emphasis which is put on massed repetition should be preferred very infrequently due to its restricted benefits, whereas spaced recycling should be increased based on its pedagogical advantages. When each course book was examined and compared to each other in terms of their distribution rate for spaced and massed repetition, no significant differences were found among them. On the contrary, the results showed that they had similar patterns in the distribution of these types. Although this finding does not seem to be significant statistically, its implications are important for vocabulary learning. The course books were similar in that all of them involved more

spaced recycling when compared to massed repetition. However, the difference between the distribution rates was quite low when their relative importance for vocabulary acquisition was taken into account. One of the course books had almost equal distribution in providing spaced and massed recycling while the other two textbooks involved spaced repetition for approximately 65% of the words. As it is discussed before, spaced recycling should be preferred in a great extent to massed repetition except several certain areas. Therefore, it is suggested these course books should be revised based on the types of repetitions and they should be improved with this aspect.

With respect to the last research question, the results showed that significant results occurred among the required learning conditions for each course book. These differences are not surprising; on the contrary, they are expected results since each learning condition requires a different level of use. Therefore, rather than where the differences occur, it is more important to examine whether each condition is provided at an ideal level. With regard to the quantity of necessary learning condition, it can be roughly said that a good course book should supply more retrieval than generation and more generative use than noticing. When the selected course books were evaluated based on this rough comparative scale, it was noticed that two of the course books followed it. However, the other provided almost equal amount of noticing and generative use, which is an unfavorable circumstance for it. Based on these results, it can be stated that some of the course books should be developed in terms of the scaling of the required learning conditions. According to the results of another analysis which was performed on each specific condition among the different textbooks, it was found that all of them provided adequate opportunities for noticing based on the threshold level suggested in the discussion section. It can be concluded that the use of noticing techniques was achieved in terms of quantity in the textbooks. Regarding the retrieval condition, the course books were observed to have similar means which were approximately 4. As it can be noticed, all the selected textbooks managed to involve sufficient retrieval; however, they can be enhanced in accordance with the rule of “the more the better”. Lastly, concerning the generative use of words in the textbooks, it was seen that one of them failed to include necessary conditions whereas the other two achieved it to a certain extent.

To conclude, after the analyses of the selected course books, some problems were identified in terms of vocabulary recycling, the use of massed and spaced repetitions as well as the required learning conditions. In the next section, some recommendations will be presented with a framework in which some general suggestions for vocabulary learning through course books are given in addition to some specific problems identified in the current study.

6.2. A Suggested Framework for Vocabulary Learning Through Course Books

The present study investigated vocabulary learning in three selected intermediate textbooks in terms of three important aspects including the recycling of words, the distribution of repetitions as massed or spaced and lastly the necessary learning conditions. Based on the identified problems and the results, some possible suggestions will be presented with their explanations in the following items which can be called as a framework for vocabulary learning through course books. However, it should be underlined that this framework also includes some ideas beyond the scope of the present study about vocabulary learning.

1. Course books should contain adequate recycling for words to be learned effectively. In the course books, each word should be encountered at least 5 times which can be accepted as a threshold level in vocabulary learning. (Tinkham, 1993; Waring, 2003; Huang & Liou, 2007, Peters, 2014). However, it is more preferable if they are repeated more than 5 times (six repetitions, Rott, 1999; seven repetitions, Kachroo, 1962; ten repetitions, Webb, 2007).

2. The course books should include more spaced repetition than massed repetition for the recycling of words since it is significantly more effective when compared to massed repetition. However, this does not mean that massed repetition should not be used at all. On the contrary, these two types of repetitions should be used according to the teaching goal of vocabulary items. While teaching the word for the first time and specifically for teaching its pronunciation and spelling, massed repetition would be more appropriate, since these two aspects of words require lots of drilling to be reinforced at a time. However, if other aspects of words (such as collocations, meaning and parts of speech) are targeted to be taught, the words need to be met in a spaced repetition format.

3. Publishing companies should provide balanced recycling between Student's Books (SBs) and Workbooks (WBs) to promote vocabulary learning. Neither of them should dominate over the other while supplying the recycling of the words since they are supplementary for each other.

4. Each unit can start with a target word list and the target words can be evaluated with "Vocabulary Knowledge Scale" (VKS) (Paribakt&Wesche, 1997) by the learners before starting that unit. In this way, learners can be supported with the retrieval of known words or with the noticing of new unknown words. Moreover, VKS can be used as a self-assessment tool at the end of each unit.

Vocabulary Knowledge Scale

- a. I don't remember having seen this word before. (1 point)
- b. I have seen this word before, but I don't think I know what it means. (2 points)
- c. I have seen this word before, and I think it means _____. (Synonym or translation; 3 points)
- d. I know this word. It means _____. (Synonym or translation; 4 points)
- e. I can use this word in a sentence: _____. (If you do this section, please also do category 4; 5 points) (Paribakht &Wesche, 1997,p.180).

5. Rather than certain words, each target word should be drawn attention in the textbooks with a noticing technique such as bolding, highlighting, glossing etc. In other words, to ensure the acquisition of all the target words, it is definitely necessary for learners to notice these words.

6. Course books should include very detailed vocabulary index sections which facilitate students to find and reach the uses of the words. In the details, the number of repetition for each word and the occurrence page should definitely be shown. Ideally, two different indexes would be most pedagogical. First, vocabulary listed unit by unit with page numbers stated together; second, an alphabetical word list where the number of occurrences listed beside each word. The word lists in the Appendices Section can be an example for the second.

7. Vocabulary lists should not only be listed at the back of the course books but also be placed at the end of each unit to get more attention. These lists should be designed in such a way that students should need to use them. For instance, next to the word list, some vocabulary exercises can be added and students can benefit from the word lists to complete the exercises. In addition, vocabulary list can be displayed

in a variety of formats which include thematically, (nature, art, health etc.) or functionally (noun, adjective, adverb etc.) ordered lists.

8. Words which are aimed to be taught in the course book should contain the most frequent words. While determining the vocabulary content of the course books, the available lists in the literature which have been suggested as frequent words can be preferred according to the teaching aim of the course (The most frequent first 1000 word list and the second 1000 list; Academic Word List, Coxhead, 2000; University Word List, Xue & Nation, 1984; General Service List, West, 1953; New Academic Vocabulary List, Gardner & Davies, 2014).

9. A systematic order from complex to simple should be followed in the design of the units and in the sequencing of vocabulary exercises. Vocabulary exercises can be presented in a hierarchy which comprises of 5 distinct categories as selective attention, recognition, manipulation, interpretation and production (Paribakht & Wesche, 1997). The first category is selective attention in which learners are provided with a target word list to draw their attention. In recognition, learners are supposed to match the target word with the given definition among distracters. In the third category which is manipulation, the purpose is to build new words by using stems and affixes. The fourth category is interpretation. In this stage, learners are asked to guess from the context. Lastly, the aim of production stage is to use the word in sentence. If vocabulary exercises are presented by taking these hierarchical categories into account in course books, it may be easier for learners to benefit from these exercises and acquire the target lexical items.

10. Each unit can be supported with a suggested graded reader and/or news stories from newspapers and magazines which have a similar topic. In this way, the target words will be encountered more frequently thanks to the advantage of narrow reading, as explained in section 2.6.2.

11. The textbooks should not only focus on the meaning of a word but also other aspects such as spelling, pronunciation, collocations, word parts, associations, parts of speech, connotation, register and derivated/inflected forms of the words .

12. Besides direct vocabulary teaching, which focuses on completely vocabulary exercises, textbooks should also contain indirect vocabulary teaching

which is enriched with the integration of listening, reading, writing and speaking skills. In other words, not only explicit instruction but also incidental vocabulary acquisition should be used to teaching vocabulary. Ideally, a combination of them should be preferred in vocabulary teaching, which was found be more effective (Hernandez, 2008; de la Fuente, 2009; Karaata, Çepik & Çetin, 2012).

13. Textbooks should contain more retrieval than noticing in terms of learning conditions since one encounter may be enough to get attention of the learner; however, it is not adequate to keep the necessary information in mind by meeting a word only once.

14. Retrieval is a crucial condition because it links two stages to each other. Therefore, it should be emphasized more than generative use. Furthermore, retrieval reinforces the acquisition of the core meaning; however, generation adds some new aspects to vocabulary learning.

15. Course books should provide both self-assessments for learners to see their improvements and performance and a variety of assessment tools for teachers according to the goal of the assessment (placement test, diagnostic test, regular achievement tests and end of course test etc.). A good course book should not only provide good learning conditions but also opportunities for assessment. In this way, thanks to available assessment tools of course books, both teachers and learners can see the progress and inadequacies in the learning process without spending too much time on preparing tests, exams and quizzes etc.

6.3. Limitations of the Current Study and Recommendations for Future Research

The present study attempted to provide some new aspects for vocabulary learning through the use of course books. However, it included some limitations in certain points as well as the generalizability of the results.

First of all, the current study included only three course books (three SBs and three WBs). In addition to the number of the course books used, it was also limited in terms of language level because it only focused on one level, which was intermediate. Therefore, it is not appropriate to generalize the results obtained from the current research to all English course books or all intermediate textbooks. Although this study is more comprehensive than some other studies which were

carried out on course books and examined only some words which were selected from certain units of the books, it is also restricted with the number of the words. Though the study contained 505 words in the first research question, 270 of them were used in the next questions since they required detailed examinations for each occurrence of these words one by one.

For the investigation of the second research question, which was related to types of repetitions, spaced repetition was dealt with in a simpler way when compared to original spacing effect. According to the spacing theory, the interval between two occurrences of a word should be extended in each time (Pimsleur, 1967). However, the present study examined spacing of the recycled words based on the units of the course books. Although it seems that this is one of the limitations of the research, the researcher has aimed to make the study and its implications more realistic. In other words, if it is suggested that course books should follow the original extended intervals for the spacing of recycled words, it is likely that it cannot be achieved by the course book writers or material designers.

With regard to the analysis of the third research questions, five-item criteria were created by the researcher. As it is stated at the end of Section 3.3., the items cannot be claimed to be completely valid and generalizable. It was an attempt to investigate the required learning conditions based on some specific rules in a content analysis of course books. It should be emphasized that there is a need for further research to fill the gap in this area and confirm the results of the present study based on these criteria.

In the lights of the limitations of the study, it is recommended for future research that the number of course books should be increased to have more valid results. In addition, it may be a good to use course books ranging from elementary to advanced level rather than sticking only to one level. Furthermore, because this type of research studies which are conducted with a content analysis technique require lots of time for data collection and analysis, it may be better to work with a group to make it more practical.

During the research it was noticed that there is a lack of research on the use of learning conditions in ELT field not only as a content analysis technique but also in experimental designs. Moreover, there is also a gap in the literature which discusses how learning conditions should be provided in language materials and how they should be analyzed with a scale. Therefore, it can be said this area is still in the need

of further research to enlighten us about the understanding of vocabulary learning process.



REFERENCES

- Alfaki, I. M. (2015). Vocabulary input in English language teaching: Assessing the vocabulary load in spine five. *International Journal of English Language and Linguistics Research*, 3 (1), 1-14.
- Anderson, J. P. & Jordan, A. M. (1928). Learning and retention of Latin words and phrases. *Journal of Educational Psychology*, 19, 485-496.
- Baddeley, A. (1990). *Human memory*. London: Lawrence Erlbaum Associates.
- Baddeley, A. D. (1998). *Human memory: Theory and practice*. Boston: Allyn and Bacon.
- Bell, J. & Gower, R. (2008). Writing course materials for the world: A great compromise. In B. Tomlinson (Ed.), *Materials development in language teaching* (pp.116-129). Cambridge: Cambridge University Press.
- Bloom, K. C. & Shuell, T. J. (1981). Effects of massed and distributed practice on the learning and retention of second language vocabulary. *The Journal of Educational Research*, 74(4), 245-248.
- Brown, D. (2010). What aspects of vocabulary knowledge do textbooks give attention to? *Language Teaching Research*, 15(1), 83-97.
- Campbell, C., Läänemets, U., Lillepea, M., Loog, T., Kammiste, T., Kärtner, P., Mägi, O. & Truus, K. (1998). Survey review: ELT coursebooks for secondary schools. *ELT Journal*, 52(4), 337-352.
- Chen, J. (2014). On vocabulary presentation modes in college English teaching and learning. *TPLS Theory and Practice in Language Studies*, 4(4), 818-823.
- Chen, C., & Truscott, J. (2010). The Effects of repetition and L1 lexicalization on incidental vocabulary acquisition. *Applied Linguistics*, 31(5), 693-713.
- Cho, K. ,Ahn, K. & Krashen, S. (2005). The effects of narrow reading of authentic texts on interest and reading ability in English as a foreign language. *Reading Improvement*, 42(1), 58-63.
- Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34(2), 213.
- Crothers, E. & Suppes, P. (1967). *Experiments in second-language learning*. New York: Academic Press.
- de la Fuente, M. (2009). The role of pedagogical tasks and focus on form in acquisition of discourse markers by advanced learners. In R.P. Leow, H. Campos & D. Lardiere (Eds.), *Little words: Their history, phonology, syntax, semantics, pragmatics, and acquisition* (pp. 211– 21). Washington, DC: Georgetown University Press.

- Dempster, F. N. (1987). Effects of variable encoding and spaced presentations on vocabulary learning. *Journal of Educational Psychology*, 79(2), 162-170.
- Ebbinghaus, H. (1913). *Memory* (H. A. Ruger & C. E. Bussenius, Trans.). New York: Teacher's College. (Original work published 1885; paperback ed., New York: Dover, 1964).
- Fan, M. Y. (2003). Frequency of use, perceived usefulness, and actual usefulness of second language vocabulary strategies: A study of Hong Kong learners. *The Modern Language Journal*, 87(2), 222-241.
- Folse, K. S. (2006). The Effect of type of written exercise on L2 vocabulary retention. *TESOL Quarterly*, 40(2), 273-293.
- Gardner, D. (2008). Vocabulary recycling in children's authentic reading materials: A corpus-based investigation of narrow reading. *Reading in a Foreign Language*, 20(1), 92-122.
- Gardner, D. & Davies, M. (2014). A new academic vocabulary list. *Applied Linguistics*, 35(3), 305-327.
- Gorgievski, N. (2011). *The impact of the spacing effect and overlearning on student performance in Calculus*. (Unpublished doctoral dissertation). University of Connecticut, Connecticut, United States.
- Heatley, A., Nation, I. S. P., & Coxhead, A. (2002). Range computer program. http://www.vuw.ac.nz/lals/staff/Paul_Nation
- Henriques, S. (2009). *An evaluation of English as a foreign language textbooks for secondary schools in Angola* (Unpublished doctoral dissertation). University of Kansas, Kansas, United States.
- Hernandez, T. (2008). Effect of explicit instruction and input flood on students' use of Spanish discourse markers on a simulated oral proficiency interview. *Hispania*, 91(3), 665-675.
- Huang, H.T. & Liou, H.C. (2007). Vocabulary learning in an automated graded reading program. *Language & Technology*, 11(3), 64-82.
- Hudson, J., Falla, T. & Davies, P. (2010). *Aim High teacher's book 3*. Oxford University Press.
- Joe, A. (1995). Text-based tasks and incidental vocabulary learning. *Second Language Research*, 11(2), 149-158.
- Joe, A. (1998). What effects do text-based tasks promoting generation have on incidental vocabulary acquisition? *Applied Linguistics*, 19(3), 357-377.

Joe , A.(2010). The quality and frequency of encounters with vocabulary in an English for Academic Purposes programme. *Reading in a Foreign Language*, 22 (1), 117-138.

Karaata, C., Çepik, Ş. & Çetin, Y. (2012). Enhancing the use of discourse markers in academic writing: The combination of incidental acquisition and explicit instruction. *Electronic Journal of Social Sciences*, 11 (40), 11-29.

Laufer, B. (2003). Vocabulary acquisition in a second language: Do learners really acquire most vocabulary by reading? Some empirical evidence. *Canadian Modern Language Review*,59(4), 567-587.

Lewis, M. (1993). *The lexical approach: The State of ELT and a way forward*. Boston, MA: Heinle.

Maddox, G.B. (2013). *The efficiency of retrieval practice as a function of spacing and intrinsic value in young and older adults* (Unpublished doctoral dissertation). Washington University, Washington, United States.

Matsuoka, W.,& Hirsh, D. (2010). Vocabulary learning through reading: Does an ELT course book provide good opportunities? *Reading in a Foreign Language*,22(1).

McDonough, J., & Shaw, C. (2003). *Materials and methods in ELT: A teacher's guide*. Oxford: Blackwell.

Meunier, F. & Gouverneur, C. (2009). New types of corpora for new educational challenges. In K. Aijmer (Ed.), *Corpora and language teaching* (pp. 179–201). Amsterdam: John Benjamins.

Nation, I. S. P. (1990). *Teaching and learning vocabulary*. New York: Heinle and Heinle.

Nation, I. S.P. (2007). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

O'Dell, F. (1997). Incorporating vocabulary into the syllabus. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary and language teaching* (pp. 258–78). Cambridge: Cambridge University Press.

Olinghouse, N. G.,& Wilson, J. (2012). The relationship between vocabulary and writing quality in three genres. *Reading and Writing*,26(1), 45-65.

Paribakht, M.&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). New York: Cambridge University Press.

Pavlik, P. I.,& Anderson, J. R.(2005). Practice and forgetting effects on vocabulary memory: An activation-based model of the spacing effect. *Cognitive Science*,29(4), 559-586.

- Peters, E. (2014). The effects of repetition and time of post-test administration on EFL learners' form recall of single words and collocations. *Language Teaching Research*, 18(1), 75-94.
- Pimsleur, P. (1967). A memory schedule. *The Modern Language Journal*, 51(2), 73-75.
- Porte, G. (1988). Poor language learners and their strategies for dealing with new vocabulary. *ELT Journal*, 42(3), 167-172.
- Richards, J. C. (2001). *Curriculum development in language teaching*. Cambridge, UK: Cambridge University Press.
- Rott, S. (1999). The effect of exposure frequency on intermediate language learners' incidental vocabulary acquisition and retention through reading. *Studies in Second Language Acquisition*, 21(04), 589-619.
- Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 129-158.
- Schmitt, N. (2000). *Vocabulary in language teaching*. Cambridge: Cambridge University Press.
- Schmitt, N. (2008). Review article: Instructed second language vocabulary learning. *Language Teaching Research*, 12(3), 329-363. doi:10.1177/1362168808089921
- Schmitt, N. & Carter, R. (2000). The lexical advantages of narrow reading for second language learners. *TESOL Journal*
- Schmitt, N., Jiang, X., & Grabe, W. (2011). The percentage of words known in a text and reading comprehension. *The Modern Language Journal*, 95(1), 26-43.
- Schuetze, U. (2015). Spacing techniques in second language vocabulary acquisition: Short-term gains vs. long-term memory. *Language Teaching Research*, 19(1), 28-42.
- Sinclair, J.M. & Renouf, A. (1988). A lexical syllabus for language learning. In R. Carter & M. McCarthy (Eds.), *Vocabulary and language teaching* (pp. 140-60). London: Longman.
- Thornbury, S. (2002). *How to teach vocabulary*. Harlow: Longman.
- Tinkham, T. (1993). The effect of semantic clustering on the learning of second language vocabulary. *System*, 21, 371-380.
- Tomlinson, B. (2008). *English language learning materials: A critical review*. Continuum International Publishing Group.
- Waring, R. (2003). At what rate do learners learn and retain new vocabulary from reading a graded reader? *Reading in a Foreign Language*, 15(2), 130-163.

Webb, S. (2007). The effects of repetition on vocabulary knowledge. *Applied Linguistics*,28(1), 46-65.

West, M. (1953). *A general service list of English words*. London: Longman, Green & Co.

Xue, G. & Nation, I.S.P.(1984). A university word list. *Language Learning and Communication* 3(2), 215-229.

Zhang, X.,& Lu, X. (2015). The relationship between vocabulary learning strategies and breadth and depth of vocabulary knowledge. *The Modern Language Journal*,99(4), 740-753.



APPENDICES

Appendix 1

The words which are found both in the word list of Aim High and “The most Frequent 2000 Head Word List” and their frequency

absolute	11	cotton	5	lawyer	21	see	175
active	7	creature	11	loose	4	sentence	340
adapt	2	cross	17	loss	7	settle	3
admire	2	damage	14	manage	34	shape	1
admit	8	deep	5	match	131	shower	9
advance	9	detect	16	material	3	simple	61
amount	13	develop	12	meet	43	since	51
announce	9	different	63	memory	39	sink	4
appear	25	dress	11	mirror	2	slow	14
apply	15	engineer	6	nanny	2	smart	6
argue	10	entire	7	neck	4	soft	3
art	79	environment	17	note	42	spot	7
article	15	example	37	nurse	2	spring	4
assist	5	expensive	16	observe	6	staff	12
associate	3	experience	37	occasion	5	stare	11
attach	7	fetch	3	once	19	stomach	3
balance	3	file	5	opportunity	8	strong	14
basis	4	fine	14	otherwise	4	surface	6
bear	2	flight	28	path	4	survive	4
benefit	6	fur	9	plain	8	tear	9
beyond	2	gift	2	play	132	thick	6
blame	1	glance	6	poet	5	though	11
boom	1	goal	6	post	28	throw	4
boring	5	guilty	24	prevent	14	tight	5
boss	5	hard	32	privacy	1	tough	2
break	32	hedge	2	prove	8	tour	1
burn	7	hire	3	provide	15	track	6
busy	11	inform	67	public	26	travel	56
care	31	instrument	4	qualify	0	treat	22
carpet	3	intend	4	range	3	trial	8
chain	3	interrupt	5	reason	24	trip	34
change	62	investigate	5	recognize	14	trunk	2
cheap	14	iron	10	reduce	8	trust	1
citizen	6	judge	11	regard	4	underneath	2
claim	21	jump	13	represent	5	warn	8
clear	18	kind	25	retire	7	watch	65
concern	8	knowledge	7	role	6	whereas	4
convince	5	land	15	salary	8	while	52
cope	3	lawn	2	scream	3	wide	9

witness

11

would

168

yell

1



Appendix 2

The words which are found both in the word list of New Success and “The most Frequent 2000 Head Word List”

access	3	cruel	7	influence	11	river	19
add	36	danger	43	interview	18	role	20
adventure	15	design	21	island	13	rope	2
afford	11	develop	16	journey	7	rude	17
alive	6	disappear	11	land	14	safe	19
amaze	13	distance	4	lawyer	6	scene	10
angry	14	divorce	3	letter	97	scream	5
anxious	6	dozen	3	lion	5	seat	20
argue	15	dress	24	loose	2	set	19
ashamed	6	Earth	17	mad	9	share	9
attach	8	emotion	16	march	7	shelter	3
attract	30	energy	14	mate	6	shout	14
awful	4	environment	12	memory	10	shy	7
band	14	evil	1	mirror	8	sign	13
bat	8	experience	29	model	22	silly	7
beauty	8	fail	13	mud	5	skill	43
belt	13	fan	15	neat	4	smell	11
boat	5	fashion	77	opportunity	4	society	7
boot	16	fear	9	pack	10	sound	20
brain	37	fence	2	parent	67	speed	13
brilliant	13	fine	19	pass	24	spread	3
bush	1	fit	29	pattern	13	stage	9
calm	12	flight	17	period	14	stick	11
capital	19	fly	11	plane	22	store	19
cash	23	foreign	2	please	44	stream	2
catch/caught	15	fur	7	poison	5	study	65
chain	12	gentleman	2	port	5	support	16
cheat	5	glad	3	power	13	swear	4
choice	16	grass	4	pressure	2	taste	12
class	48	guarantee	3	prevent	8	tense	31
club	38	gun	9	prison	32	thief	9
comfort	13	head	27	progress	4	tie	3
compare	16	hesitate	1	protect	9	tip	4
complete	268	hire	2	prove	6	train	96
consider	12	honest	11	range	5	trick	10
convince	2	hotel	35	reach	11	turn	48
cost	18	hurry	9	record	20	upset	11
cough	4	image	5	relief	3	victim	8
cover	14	increase	6	replace	22	voice	11
creature	6	indicate	1	research	6	warn	2

weak	2	wing	3	worm	4
western	1	wonder	12	wrong	31



Appendix 3

The words which are found both in the word list of Face2face and “The most Frequent 2000 Head Word List” and their frequency

account	3	cough	6	honest	8	pressure	7
act	27	country	43	honey	4	promise	8
admit	7	crash	6	hot	13	protect	7
adventure	13	crawl	1	however	37	protest	3
agree	41	cream	4	huge	11	reckon	4
although	12	create	9	important	35	refuse	12
angry	17	cry	10	improve	4	relax	29
appear	18	danger	25	invite	15	release	11
approach	2	decide	28	involve	2	remind	5
argue	5	decision	25	jam	5	reserve	1
arrange	11	delicious	3	journey	9	responsible	6
assist	7	depend	6	keep	31	roof	1
attitude	2	difficult	25	knowledge	5	rubbish	15
attract	8	direct	35	laugh	50	sad	6
awful	10	dirty	8	lazy	1	salt	4
bad	55	disappear	4	love	41	sauce	6
bag	6	disappoint	12	massive	1	scratch	6
bake	4	drawer	7	mean	82	shine	4
band	8	embarrass	11	metal	6	shiver	1
beef	4	employ	11	milk	12	show	23
beer	4	encourage	10	mind	34	single	5
big	40	enjoy	44	mirror	5	small	20
blonde	4	enormous	4	music	49	smile	25
boil	9	entertain	11	nature	4	soup	9
bottle	10	fair	9	nervous	15	spot	1
box	21	famous	18	nice	11	stage	8
brave	1	fan	10	noise	5	stairs	3
brilliant	11	fantastic	7	notice	46	steel	1
bug	2	fashion	5	offer	15	stick	5
but	245	flood	5	onion	6	store	7
calm	4	fortunate	11	paper	22	storm	4
can	447	fry	5	patient	19	stretch	1
certain	4	garage	2	pie	2	study	36
chocolate	7	glad	4	pile	7	stuff	22
choose	114	glass	12	plain	2	suggest	31
cold	9	good	150	plastic	11	suit	7
collect	9	gorgeous	7	pleasant	2	sure	36
comfort	5	great	15	pollute	2	terrible	22
confuse	4	happy	32	popular	17	tin	11
cook	44	harm	8	possible	74	tiny	3
cottage	9	hate	14	practical	2	track	8
cotton	4	health	44	prefer	15	tradition	17

trap	2	upset	13	wave	6
travel	51	wander	2	wood	6
trip	7	warn	17	wool	3



CV

Habibe Bakkal has been working as an EFL teacher in a private school for 5 years since she graduated from English Language Teaching Department in Boğaziçi University in 2011. After working in this field for three years, she started her MA degree in Fatih University. Her research interest includes second language vocabulary acquisition, extensive reading with graded readers, use of technology in ELT and teaching young learners.

E-mail:habibe.uzundal@hotmail.com

