



**RETENTION AND USE OF LEXICAL COLLOCATIONS
(VERB + NOUN AND ADJECTIVE + NOUN)
BY APPLYING LEXICAL APPROACH IN A READING COURSE**

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Abstract:

The purpose of this study was to investigate whether teaching vocabulary via collocations would contribute to retention and use of foreign language, English. A quasi-experimental design was formed to see whether there would be a significant difference between the treatment and control groups. Three instruments developed were conducted to 60 participants. The experimental group was taught collocations through lexical approach by means of ten different kinds of activities for ten weeks. On the other hand, the control group was taught in a traditional way, only focusing on word definitions from dictionary, antonyms, synonyms and guessing from the text. The results showed that the participants in the experimental group outperformed the ones in the control group in all of the three instruments. The study also indicated that a period of treatment and exposure to lexical collocations led the treatment group to remember and produce the collocations in the reading courses more appropriately and less deviantly than the control group. This result showed that teaching collocations in the class systematically week by week and scaffolding learners' progress could lead to better learners who can remember and use collocations in their reading comprehension in English.

Keywords: collocations, retention, lexical approach, lexical collocations, lexical phrases, pattern-centered learning

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1. Introduction

Grammar teaching and communicative approach, dominant between 1960 and 1980, downgraded the explicit teaching of vocabulary with the idea that learners can learn vocabulary on their own with implicit strategy, guessing and inferring from the context (Howarth, 1998; Lewis, 1998, 2000). Harwood (2002) explicates that vocabulary was secondary in importance for nearly two decades. Language teaching has long regarded grammar and vocabulary as a dichotomy, and it has also long been thought that the former focused on structure, the latter on single words. In recent years, this dichotomist distinction has changed into a continuum of grammar and lexis composed of idioms, fixed and prefabricated phrases and collocations.

Collocation often used in different and vague senses is the key term in this study. As Nesselhauf (2005,p.33) indicates, *“word combinations cannot be clearly delimited.”* Collocation was first defined by Firth (1957, p.12) as *“an abstraction at the syntagmatic level, and is not directly concerned with the conceptual or idea approach to the meaning of words.”* Howarth (1998,p.27) classifies collocations as lexical and grammatical units, and explicates that *“lexical collocations consist of two open class words (verb +noun, adjective + noun), while collocations between one open and one closed word are grammatical.”*

Lewis (1993,p.93) emphasizes that *“collocations describe the way individual words co-occur with others.”* According to Sinclair (1991,p.170), collocation is *“the occurrence of two or more words within a short space of each other in a text.”* Collocations are mostly seen as either phraseological, frequency based units or collostructional (Nesselhauf 2005; Cowie 1981; Gries, 2012, 2013). On the other hand, Howarth (1998, p.24) defines that *“collocations are combination of words with a syntactic function as constituents of sentences.”* A more operational and functional definition of collocation is that *“collocation is the way words combine in a language to produce natural-sounding speech and writing,”* which emphasizes production in the target language rather than only comprehension (Oxford Collocations Dictionary for students of English 2002, p.vii).

Pedagogic value of collocation has been emphasized by researchers in recent years (Lewis 1998, 1993, 2000; Woolard, 2000). Lewis (1998, p.33) asserts that *“collocations provide learners with a powerful organizing principle for language.”* Furthermore, learning in chunks is more effective than breaking into pieces. Raising learners' awareness of collocation will help them feel self-confident during production, and thus studying on collocations *“increases learners' communicative power”* (Lewis 1998, p.33). In this sense, teachers should encourage learners to keep a vocabulary notebook and record collocations and help them *“identify collocations in texts”* (Woolard, 2000, pp.30-31).

Collocation studies mostly focus on lexical category (Howarth 1998; Biskup 1992; Al-Zahrani 1998; Nesselhauf 2005) because their number, which amounts to tens of thousands, outweighs collocations of grammatical category (Bahns 1993; Nesselhauf 2005). Another for choice of lexical collocation in this study is that they are “among the most difficult for the learner” (Nesselhauf 2005, p.9) and also “tend to form the communicative core of utterances where the most important information is placed” (Altenberg, 1993, p.227). It was found that verbs are the most frequently deviant element and the second most frequently deviant nouns. Some researchers (Laufer 1991; Kallkvist 1999; Nesselhauf 2003) have stressed the difficulty of learning verb combinations because in terms of linguistic account, verbs are arbitrarily restricted in its combinability. This nature of arbitrariness of language makes usage of verbs more difficult because word combinations are social institutions and naturally arbitrary (Lewis 1993, 2000). Howarth’s findings (1996) have also focused on the importance of verbs and nouns in the collocations can be corrected by changing either the verb or the noun. In this study, Nesselhauf’s definition of collocation (2003, 2005) was taken as a criterion because she divides restricted collocations into two categories as RC1 and RC2, which are more appropriate to shed light on the collocations to be used.

In line with the development in formulaic language studies, in Turkish context, the studies regarding lexical collocations have also been prolific only recently (Alpaslan, 1993; Eker, 2001; Çetinkaya, 2009; Balcı and Çakır, 2012; Bıçkılı, 2012; Durrant, 2013). These studies largely focused on written production of lexical collocations in foreign language learning and language studies such as dictionary preparation or typological studies in Turkey. Although some experimental studies of lexical collocations have also been carried out in Turkish context in the last few decades (Altınok, 2000; Gencer, 2004; Balcı & Çakır, 2012), these studies have contributed to gaining awareness of collocations. Balcı and Çakır (2012), different from the previous studies in Turkey, focused on the primary language learning and found that collocation training was important to help young learners learn a foreign language better.

2. Method

2.1. Participants

The study included 60 participants who were freshmen in an English Language Teaching Department. The treatment group comprised of 30 participants. In the same way, the control group composed of 30 participants whose age ranged from 18 to 20.

2.2 Data collection

The data for this study were collected through pre- and post-tests, guided writing tasks and retention judgment test. At first, a pre-test was given to the participants to form homogenous groups as experimental and control.

Another technique used to collect data is elicitation technique, and includes studies based on the stimulus such as picture, diagram or standardized test, and covers questionnaires, surveys and interview data (Nunan 1992). For this purpose, two elicitation tasks were used; guided writing task aimed at measuring the performance of collocations used in writing. A tentative disadvantage of elicitation tasks is that the learners may not want to use the language items presented (Nunan 1992). The disadvantage of this elicitation production task was that the learners had difficulty writing in a guided way because they preferred to write freely. However, the design and scope of the study did not let the participants write freely. Rather, they were asked to write about the topics given using the words ranging from 15-20 in the guided vocabulary box.

The second elicitation task was retention judgment test, which intended to collect data by giving judgment on the sentences given. Although retention judgment test is not found in the literature, this test can be called a kind of elicitation task because the test was prepared in the form of a questionnaire, and since questionnaires are a kind of elicitation techniques (Nunan 1992), it can be regarded as a kind of elicitation technique. In addition, judgment test aims to elicit information required from the participants.

2.3. Instruments

The instruments were developed according to the research questions and the literature reviewed by the researchers on the various elements of Lexical approach (LA) techniques. Accordingly, three instruments; pre- and post-tests, guided writing tasks and retention judgment test were used in this study.

2.3.1. Pre-test and post test

A test composed of 40 question items, 25 of which were verb + noun, and 15 of which were adjective + noun collocational relations was used to see whether there was going to be a significant difference between the two groups in the post-test. The sentences of question items were taken from the text book used for the reading course. The question items were chosen according to the criterion of importance of words in the text book determined by Rudzka et al. (1981) who gave collocational grids and collocations of active vocabulary in the text book.

2.3.2. Guided writing task

In order to see the performance of both groups in a productive skill, four guided writing tasks were given to the participants. Each guided writing task was presented at the end of each unit. The participants were given important and active words specified by Rudzka et al. (1981) ranging from 15 to 20 in a guided vocabulary box to write a 200 word essay using the words. None of them was timed. The participants were instructed that there would be no time limit in completing the writing task. In the guided writing tasks, the participants wrote about the subtopics related to the unit topic they studied. The participants did not have only one chance to write but rather various subtopics were presented so as to facilitate their writing (Hughes 1996). The essays consisted of non-academic and non-technical argumentative essays; namely, general essays arguing a point were chosen from the textbook. Later, all lexical combinations were extracted from the essays and checked whether they used the appropriate collocation in the essays. The analysis was done manually.

2.3.3. Retention judgment test

A retention judgment test was given to the participants in order to see to what extent they could remember and make judgments on the collocations they studied. The test was composed of 76 sentences, 42 of which were verb + noun and 32 of which were adjective + noun collocations. Non-restricted collocations were not given in the test because free combinations are not hard for L₂ learners at all (Nesselhauf 2003). RC1 and RC2 collocations were scanned and given to the participants. The test was presented to the participants four months later because they were exposed to different vocabulary in the reading course in the spring term for 14 weeks. All sentences were deliberately chosen as true collocations in the retention test, and extracted from the passages they have read for ten weeks. A three point scale of judgment composed of **true**, **false** and **unsure** was given to the participants. Collocation changes were not made but only some minor changes such as subject or tense of the sentences were made.

2.4. Materials

As a textbook, *The words you need* by Rudzka et.al (1995) was used in the reading course. This textbook was chosen because it was one of the best books that focused on collocation grids, restricted collocations and semantic prosody, and mostly provided the differences of collocations of synonymous words totally vital to students' learning. The importance of the book selected was also stressed and used by different researchers since it emerged in the market (Carter & McCarthy 1996; Nesselhauf 2005; Ooi & Seah 1996). There were 10 units in the textbook but the first, second, fifth and seventh units of

the book were chosen according to the interests of the participants in order for them to be motivated during the lessons. Each unit was composed of four passages focusing on the same idea from different perspectives. This kind of choice was important to study collocations because reading only one passage about one topic would not be effective in the collocation study, but rather, for the purpose of the study, different passages on the same idea would function as corpus to be scanned by the participants and to study collocations, and as Tulving (1983) puts it, richness of the material is vital to retention. Various reading passages on four topics were studied for ten weeks, and each week the participants attended the reading course for six hours.

2.5. Procedures

The activities used in both groups were different. The control group was taught vocabulary in a traditional way, focusing antonyms, synonyms, word definitions and guessing. However, eight different kinds of collocation exercises were presented to the experimental group. The collocations that addressed the design of the study were only 50 questions. However, since this study focused on only verb + noun and adjective + noun collocations, ten lexical collocations were excluded from the poll because they were either adverb or noun collocations. The collocations mentioned in the passages were chosen from the textbook because there were also other sentences including collocations not mentioned in the textbook.

The guided writing tasks were formed according to the criterion of active role of word combinations in the text. Whether the word combinations were active in the text was based on the presence of words in collocation grids in the exercise part of the textbook. The students were not also given only one topic to write but rather different subtopics were given so that the participants could write with no force (Hughes 1996). The participants were not given time limit because asking the learners to write in a guided way requires more time and effort than in a free way. They were asked to write an essay consisting of 200 hundred words. The essays were non-argumentative and non-scientific. The topics they wrote depended on mostly their impressions from the passages they read or the experiences they had from everyday life.

The passages in four units were scanned to form the retention judgment test, and the most active lexical collocations were extracted from the textbook and presented to the participants. There were 42 verb+ noun and 34 adjective + noun collocations. The participants were given three point scale of judgment consisting of **true**, **false** and **unsure**. In order to test the participants' judgment, all sentences were deliberately chosen as true collocations in the retention test. Minor changes were made in the

sentences; some of them were **nativized** without changing the meaning of word combinations. For example,

*In America, **the slim majority** still think that they are unhappy.*

nativized to

*In our campus, **the slim majority** still think that we need different restaurants.*

As seen in the example, the word combination **the slim majority** was not changed at all. These changes were made to measure whether the participants could remember and judge word combination in a different context, even if it is used in a sentential context, which means that the sentences were not totally context-free but were intended to contain a context that would enhance clarity of the meaning.

2.6. Coding

Judgment on collocations is difficult even if there is a huge corpus. As Nesselhauf (2005) puts it, the fuzziness in the area of collocation is relatively great. In this study, Nesselhauf's (2005) five point scale of acceptability was used. However, in this study, five point scale of acceptability was reduced to three point of acceptability for practical reasons. Two types of sources were used to determine the degree of acceptability of collocations produced by the learners in guided writing tasks. The former is dictionaries, which are Collins Cobuild English Language Dictionary (1988), Longman Dictionary of Contemporary English (2003) and Oxford Collocations Dictionary for Students of English (2002). The latter is native speakers, who were two Americans and one British, three of whom were college graduates and spent most of their time in English speaking countries.

The combinations were presented to them in context so as to make learners' intended meaning as clear as possible. The scale was composed of acceptable (A), questionable (Q), unacceptable (UA). The essays were analyzed by the native speakers. If native speakers and dictionaries approve what the participants wrote down, it was accepted as acceptable (A). If it is found in the dictionaries but native speakers are not sure, it was taken again as acceptable (A). If it is not in the dictionary but the native speakers accept it as questionable, it was accepted as questionable (Q). If sources, native speakers and dictionaries do not accept the usage of collocation written, it was accepted as unacceptable (UA). If it is not found in the dictionaries but the native speakers say we do not clearly say in this way, it was again accepted as unacceptable (UA).

If native speakers judged the combinations unacceptable, they were asked to provide an acceptable or better option to express the intended meaning. This coding should not be taken to mean that all judgments are absolute but rather tentative.

3. Results

The main aim of this study was to investigate whether focusing on collocations would make a significant difference between the two groups in terms of retention and production of collocations. The results discussed under the subheadings of homogeneity tests, results of pre- and post-test, retention judgment test and guided writing tasks were given in the tables below.

Table 1: Descriptive Statistics and t Values of Treatment and Control Group for Michigan Proficiency Test

Michigan test	Groups	N	X	SD	D	t	P
Results	Control	30	61.129	10.22	58	1.33	.187
	Treatment	30	64.451	9.35			

It is clear from Table 1 that there was no significant difference between the control and treatment groups initially. In Table 2, while the mean for the treatment group is 362.57, the mean for the control group is 363.84, which implied that there was homogeneity in the scores they obtained from YDS exam. In the same way, there was no significant difference between the groups ($p > .005$). In Table 2, while the mean for the treatment group is 64.451, the mean for the control group is 61.129, which indicated that the groups were similar to each other in terms of their homogeneity. There was also no significant difference between the groups ($p > .005$).

3.1. Pre-test and post-test results for achievement test

The result below is an answer to the first research question, which aims to measure achievement in appropriate collocations in a multiple choice task in both groups. Independent t sample test was used to compare the mean of both groups and to see whether there was a significant difference between the groups in terms of their learning collocation. The scoring of pre-test and post-test was done by giving one point to each correct answer and zero point to each wrong answer. Totally 60 students participated in the study.

Table 2: Overall Results of the Retention Judgment Test According to the Frequency Criteria

Groups	Judged as <i>true</i> collocations	Judged as <i>false</i> collocations	Judged as <i>unsure</i> collocations
Treatment	1704	264	320
Control	1409	430	449

As seen above, the treatment group judged collocations 1704 times correctly as *true*, whereas the control group judged them only 1409 times correctly as *true*. When looked at the collocation judged as *false*, it can be seen that the control group judged the collocations out of 76 sentences 430 times as *false* while the treatment group judged them as *false* only 269 times. The collocations judged as *unsure* by the control group were 449, whereas the treatment group judged the collocations as *unsure* 320 times. In overall results, it was seen that the treatment group remembered and judged collocations better than the control group.

Table 3: Result of Independent t test between the Groups

Tests	Groups	N	X	SD	D	t	P
Pre-test	Control	30	15.03	3.35	58	-108	,100
	Treatment	30	15.12	3,25			,100
Post-test	Control	30	23.03	3.91	58	5.45	.000
	Treatment	30	27.93	2.97			.000

An examination of Table 3 shows that in pre-test, the mean for the treatment group was 15.12 and the standard deviation 3.25, while the mean for the control group was 15.03 and the standard deviation 3.35. There was no significant difference between the groups in pre-test results ($p > .001$). When looked at the post-test results in Table 3, the mean for treatment group was 27.93 and the standard deviation 2.97 while the mean score for control group was 23.03 and the standard deviation was 3.91. There was a significant difference between the groups ($p < .001$). The post-test results showed that the treatment group exposed to 10 week collocation study in the reading course performed much better than the control group.

4. Discussion and implications for applied linguistics

Results of the findings will be discussed in several dimensions: systematicity, length of time, explicit teaching, L1 influence, questionable collocations and psychological processing first, systematicity is vital in collocation studies in teaching reading because randomly taught collocations may not be retrieved easily from mental lexicon. Systematicity in vocabulary teaching has been emphasized and is thought to lead to acquisition (Nation, 1990; Nesselhauf, 2005). Nattinger & DeCarrico (1992) argue that since formulaic phrases are taught in any systematic way in second language classes, non-native speakers often do not recognize the relationship of its parts and classify how to teach lexical phrases systematically. In course books, useful expressions are given in

a certain part systematically but Nesselhauf (2005) points out that researchers do not have necessary instruments and materials to teach collocation systematically.

Second, without adequate time, it is hard to keep words and word combinations in the mental lexicon in order to retrieve them later. Incidental vocabulary may help learners remember and use some words but the collocation studies show that it may not help learners form appropriate word combinations. Length of time means sustaining teaching the same vocabulary, and drives the learners to focus on the word combinations of the words they have learned. Revisit and recycle strategy can be seen as a waste of time by teachers or learners. However, frequent recycle and revisit strategy in collocation studies is of great importance. Therefore, throughout the study revisit and recycle strategy was applied; different activities such as *five word stories*, *the missing verb*, and *matching collocations* were also given to the treatment group because EFL learners are easily bored in classroom environments. Following learners' progress week by week may both require a long time and help learners acquire collocations systematically and accurately. Fruitful results cannot be expected from collocation studies in a short time. In this study too, a period of 15 hours was spent for each unit and the collocations studied were often recycled and revisited.

Third, some findings (Nesselhauf, 2003; Lewis, 2000; Howarth, 1998) about collocational competence show that even if a learner has long been exposed to English in English speaking countries, it has been seen that it had a slight effect on collocational accuracy and had no effect in language classrooms. It is assumed that explicit teaching help learners gain awareness on what they have been learning. In this study too, learners were often given explicit teaching. The participants were given the chance of making comparisons between their L₁ and L₂ in order to focus on word combinations. One of the activities stated in Lewis' (1998) exercise is translation from L₂ to L₁. He puts forward the idea that translating from L₂ to L₁ is important in gaining awareness of the differences in collocations in separate languages, so in Lexical Approach, translation activity is regarded as a positive element. In addition, incidental learning is not sufficient for collocation studies because even if learners are exposed to learning words randomly, they may have difficulty producing L₂ lexis appropriately. Explicit teaching triggers awareness in learners and drive them to notice on collocations. Learners may require explicit teaching activities.

Fourth, although some researchers (Martin, 1984; Dechert & Lennon, 1989; Lennon, 1989) state that L₁ influence is not much important in the area of lexis, recent research findings (Biskup, 1990; Nesselhauf, 2003, 2005; Bahns & Eldaw, 1993; Biskup, 1992) have discovered that L₁ influence seems unavoidable in collocation studies. There is frequent transfer by advanced learners, and such an influence is likely (Nesselhauf,

2005:180). In her study, she states that verbs and nouns form the higher degree of L1 influence. 200 verbs and 76 nouns out of 476 words were influential in her study. Verbs in collocations are often transferred. The rate of transfer occurs higher than in free combinations. This situation shows that cognitive energy is needed to lessen the rate of L1 transfer. L1 influence seems to be unavoidable in collocation studies. In this study too, L1 influence was observed in the production of the guided writing tasks.

Fifth, questionable collocations imply that collocations deserve more attention than it does now (Nesselhauf, 2005). Learners should choose the collocations which will meet their immediate needs. Arbitrariness of collocations is a relatively big problem in terms of both diminishing the influence of L1 and the learners who want to learn them appropriately because word combinations are arbitrarily restricted and fuzzy; complete judgments are hard to make from time to time. In this study, nearly a quarter of the collocations could not be judged completely, and finally, psychological processing has not been dwelt on in detail. In most surveys, psychological process is often mentioned with two or three statements (Nesselhauf, 2003, 2005). However, it deserves more attention than it is mentioned. Without knowing the mechanisms of psychological processing while teaching collocation, expected results may not be taken.

Sousa (2000) and Eric (2000), brain researchers, stressed the importance of attention in processing information and added new categories into short and long term memory systems. As Sousa (2000) puts it, less is better for the working memory and short is better for attention. In this sense, one cannot expect L2 learners to learn entire collocations in a short time because in learning collocations, cognitive energy is required and arbitrariness of word combinations pose another problem for learners. Only scanning and recording collocations from texts or corpora or concordances is not enough because learners thus become exposed to a large pile of data. Rather, according to Sousa (2000) and Jensen (2000), mostly adults have the ability to store only 7 chunks in a lesson.

Paradoxically, teachers and learners are faced with a large group of combinations while reading a text. Understanding the text at sentence and collocation level require a great effort for learners. That's why teachers should spend a lot of time on texts both chunks and collocations via recycle and revisit strategy in the course. Recent brain studies in collocations can be one of the solutions as to why even advanced learners in English speaking countries or EFL classrooms make lots of collocational errors. In this sense, as Nesselhauf (2005) suggests, systematicity is vital to help learners acquire collocations. One more option can be included into her principle of systematicity. Attention issue should be taken into consideration while teaching collocations systematically considering because disregarding attention in collocation studies will

cause learners to attend to a great number of data at the same time, which may be unlikely to help learners retrieve what is learned.

5. Implications of the study

Several implications can be elicited for teachers, material writers, testing members and researchers through this study. First, teachers have new roles in collocation studies because not only students but also teachers have much to learn from collocation studies. Only knowing the meaning of the words and teaching meaning are not adequate alone. Rather, lexical items should be stressed in reading courses and vocabulary teaching. In addition, teachers should know how to use corpus and concordance in collocation studies. They should help and encourage learners to regard the texts as corpora to scan and record collocations they have read.

Second, material writers, while preparing course books or developing materials, should present the same collocations in different activities and a challenging way, which will facilitate learners' retention of collocations. They should also sustain collocation activities in the following chapters. They should not present lexis only once in the units but rather use the strategy of recycle and revisit systematically, which is at the heart of Lexical Approach. In addition, they should give concordance and corpus examples so that the learners can make generalizations from patterns in a unit. This can be of help to learners in that they can study word grammar through concordances. They should also design activities which will direct the learners into the text again and re-scan the text in order to focus on collocations and other lexical items such as fixed and semi-fixed expressions.

Third, those who prepare tests should prepare items which stress not only meaning of the word but also word combinations. Lewis (2000) gives an example of collocation to be used in testing. He states that only one sentence to elicit word meaning is not enough. More than one sentence should be given while preparing a sentence so that the learners can retain the meaning in his/her mind because the sentences should be in a kind of co-text, which will sound meaningful to the learners. The language test should also ask the word combinations based on real language, that is, corpora studies. Lastly, the researchers studying on collocation area may focus on lexical collocations, which have syntactic functions in language production. Systematicity can be developed through analysis of learner corpus studies as in Nesselhauf's study (2005).

6. Suggestions for further research

This study aimed to investigate whether there was going to be a significant difference in retention and production of lexical collocations via Lexical Approach. Further studies can be conducted to examine not only lexical collocations but also grammatical collocation relations because studies in this area mostly have focused on lexical collocations, *verb + noun* relations so far. If other collocation categories are examined in detail, the problem of systematicity can be solved in this area. What is needed is the re-analysis of corpus studies and learner corpus in second and foreign language settings so that researchers can put forward systematic approach in collocation studies. Another suggestion for the research in this area is that researchers should long expose learners to scan, study and record collocations in experimental studies. To solve the problem of questionable collocations, researchers should study with more researchers and relate their studies to larger corpus texts. Lastly, following the progress of learners from elementary level through intermediate and advanced levels will give researchers an insight of to what extent collocations can be taught and what collocations should be taught first. L2 processing of collocations, in this sense, can also be studied for a better theoretical understanding of the theory.

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