

# Examining Turkish ESL Learners' Receptive Collocational Knowledge

## Türk ESL Öğrencilerinin Algısal Eşdizim Bilgilerinin İncelenmesi

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### Abstract

Native speakers have extensive knowledge of how words combine in their language. This knowledge and systematic use of the combinations is considered an important element of native speaker competence. In the linguistics literature, 'formulaic speech' or 'collocations' are the terms used for describing the recurrent combinations of lexical items. In this research, the researcher has developed a tool with a 5-degree system in accordance with the related research in literature; the purpose being to find out to what extent its target population has developed an intuitive knowledge of recognizing possible collocations of the target items and has been effected by their L1 while making their choices. According to the data that has been obtained from the present collocations study, it can be argued that most of the third-grade students of The English Language and Literature Department in a state university in Turkey have an intuitive knowledge of recognizing suitable collocation formations. When the cut point for success is determined as 50, only two students scored under this point (33 and 48). The rest of the students' total grades were above this point.

**Keywords:** Lexical retrieval, formulaic speech, L1 transfer, collocation

### Öz

Anadili konuşanlar, kelimelerin kendi dillerinde nasıl bir araya getirildiği konusunda kapsamlı bir bilgiye sahiptir. Bu bilgi ve kombinasyonların sistematik kullanımı, ana dili konuşabilme yeteneğinin önemli bir unsuru olarak kabul edilir. Dilbilim literatüründe, "formüsel konuşma" veya "eşdizim", sözcüksel yapıların tekrarlayan kombinasyonlarını tanımlamak için kullanılan terimlerdir. Bu araştırmada araştırmacı, hedef kitlenin, muhtemel eşdizimleri tanıması konusunda ne ölçüde sezgisel bir bilgi geliştirdiğini ve seçimlerini yaparken anadilleri tarafından ne kadar etkilendiklerini bulmak amacıyla literatürdeki ilgili araştırmalara uygun olarak 5 dereceli bir ölçme aracı geliştirmiştir. Mevcut çalışmadan elde edilen verilere göre, Türkiye'deki bir devlet üniversitesindeki İngiliz Dili ve Edebiyatı Bölümü'nün üçüncü sınıf öğrencilerinin çoğunun, uygun "eşdizim" oluşumlarını tanıma konusunda sezgisel bir bilgiye sahip oldukları iddia edilebilir. Başarı için kesme noktası 50 olarak belirlendiğinde, sadece iki öğrenci bu değer altındaki puan almıştır (33 ve 48). Öğrenci notlarının geri kalanı bu ortalamanın üzerindedir.

**Anahtar Kelimeler:** Sözcüksel çıkarım, formüsel konuşma, anadil aktarımı, eşdizim

### Introduction

In the field of phraseology, there are various definitions and explanations what "collocation" stands for and a general classification for them is very difficult to be found in the relevant literature. On the other hand, all theories related to the term "collocation" suggest that they are primarily syntagmatic relations the slots of which are not filled by grammar rules alone (Benson et al., 1997). Also, they are generally defined according to the research area or practical purpose for which they are of immediate concern. Thus, different approaches, interpretations and applications of the concept "collocation" will be discussed below to have a clear understanding.

### Different Approaches, Interpretations and Applications of the Concept of Collocation

Palmer can be suggested as the one who has firstly used the concept of collocation in its modern linguistic sense (Cowie, 1999). However, Swiss structuralist Charles Bally who distinguishes between locutions phraséologiques (phraseological units in the broadest sense) and unités phraséologiques (idioms in the strictest sense) can be seen as the father of phraseology in general (Bally, 1909 as cited in Hunston, 2002).

Six major approaches to collocations can be listed as:

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- 1) the pedagogical,
- 2) the lexicographical,
- 3) the early (Russian) phraseological,
- 4) the (contemporary) phraseological,
- 5) the linguistic (frequency-based) and
- 6) the computational approaches (Maurer-Stroh, 2004).

In practice, however, these approaches are all interrelated. In the following, different approaches will be outlined and the people most prominently associated with them will be defined.

### **The pedagogical approach to collocations**

Palmer was interested in collocations in the pedagogical sense because he was an English teacher in a foreign country (Japan). He has suggested that learning English is difficult in that it consists for the most part in the existence of so many odd “comings-together-of-words” (Palmer, 1938, p. 13). Thus, Palmer was fully aware of the need for a classification of these “comings-together-of-words”, and he defined collocation as “a succession of two or more words that may best be learned as if it were a single word.” (Palmer, 1938, p. 13). Although Palmer and his assistant and eventual successor A.S. Hornby used the term collocation for the whole spectrum of word combinations such as ‘polywords’, ‘fixed expressions’, ‘semi-fixed expressions’, their work laid the foundations for the treatment of collocations and idioms by later generations of phraseologists, both theorists and lexicographers (Bonk, 2000).

### **The Russian phraseological approach to collocations**

According to Russian phraseologists (e.g. Vinogradov and Amosova), phraseological units were considered as different realizations on a phraseological continuum. While they were trying to classify all phraseological units they used the “different degrees of opacity of the combinations as the main concern” (Maurer-Stroh, 2004, p. 17).

On the primary level of the Russian phraseologists' classification, sentence-like (or pragmatic) units were distinguished from word-like (or semantic) units. Word-like units were classified along a cline of semantic motivation:

- 1) semantically opaque units,
- 2) partially motivated units and
- 3) phraseologically bound units – where collocations fall under the third category (Cowie, 1998, p. 4-7). For the purpose of this study, it will be only dealt with word-like units since four types of collocation combinations analysed in the study fall in this category.

### **The phraseological approach to collocations**

With the strong effect of the Russian tradition, the phraseological approach to collocations has also tried to categorize “all phraseological units along a cline of varying degrees of opacity” (Skandera, 2004, p. 28). The categorization of phraseological units has been detailed by Cowie with the “lexical and grammatical variability” beside “the semantic transparency” (Nesselhauf, 2004: 10).

First of all, Cowie (1994) distinguishes “composites” from “formulae” - a categorization which goes hand in hand with the Russian tradition - the former being word combinations below the sentence level. As Bonk (2000) states in his study, according to

semantic transparency and (lexical and grammatical) variability composites are further classified into the following categories which should be seen on a scale from (1) to (4):

- (1) pure idioms - they are completely opaque and invariable, e.g. red tape
- (2) figurative idioms - they are slightly variable and have one figurative and one literal interpretation, e.g. green fingers
- (3) restricted collocations - they have one figurative and one literal element and there is an arbitrary combinability restriction on one of the elements with other elements outside the combination, e.g. dry cow
- (4) open collocations - they consist of elements which are both used in their literal sense and they are freely combinable, e.g. thunderous applause.

### **The lexicographical approach to collocations**

The presentation of collocations in dictionaries is the main concern of the lexicographical approach. Hausmann, first of all, distinguishes fixed (idioms, compounds, etc.) from non-fixed combinations (co-creations, collocations and counter-creations) (Hausmann, 1984, as cited in Nesselhauf, 2004).

Nesselhauf (2004) suggested that Hausmann contributed to the collocation theory with his view “what the status of the two elements in the collocation is not the same” (1984, p. 16). While the “base” is semantically autonomous, the “collocator” is chosen according to this base and only get its precise meaning from that combination (Bonk, 2000). Hausman (1984) suggests that collocations should be listed under their bases rather than their collocators (as cited in Nesselhauf, 2004).

Beside Hausmann also Lewis has a very important place in the field of collocations with his ‘Lexical Approach’ (1993). The Lexical Approach concentrates on developing learners’ proficiency with lexis, or words and word combinations. The ability to comprehend and produce lexical phrases is seen as an important part of language acquisition by this approach. Furthermore, according to it, these chunks became the raw data by which learners perceive patterns of language traditionally thought of as grammar (Lewis, 1993). Collocations and expressions that include institutionalized utterances get special attention in the Lexical Approach. Collocation is “the readily observable phenomenon whereby certain words co-occur in natural text with greater than random frequency” (Lewis, 1997a, p.8).

However, as it is stated in Shin and Nation (2008), there are some problems with Lexical Approach like Lewis' suggestions. One is given as his classification of multi-word units (including ‘collocations’, ‘polywords’, ‘fixed expressions’ and ‘semi-fixed expressions’) was not consistent with existing studies on the multi-word unit. The problem is that these categories include a very broad and overlapping range of word groups. Thus, there are difficulties in reliably assigning items to the categories.

### **The linguistic (frequency-based) approach to collocations**

Firth was the first to establish the expression collocation as a technical linguistic term by stating "I propose to bring forward as a technical term, meaning by 'collocation'" (Firth, 1951, p. 194). Parallel with his ‘Theory of Meaning’, where he explains that “meaning by collocation is an abstraction at the syntagmatic level and it is not directly concerned with the conceptual or idea approach to the meaning of words [nor is it the same thing as contextual meaning]. One of the meanings of night is its collocability with dark, and of dark, of course, collocation with night.” (Firth, 1957, p. 196), he has developed Firthian concept of collocation.

However, Firth never clearly defines the term collocation (Lyons, 1977). As Nesselhauf (2004) observes, he generally uses four different concepts: (1) co-occurrences of words in general (frequent or rare), (2) habitual (= frequent) co-occurrences of words, (3) a number of consecutive words or (4) an order of 'mutual expectancy'.

Halliday was early authors who adopted Firth's concept of collocation. He considers collocations as "syntagmatic associations of lexical items of all probabilities which occur in a certain distance from each other" (Halliday, 1966, p. 156). He defines 'probability' as "the frequency of the item in a stated environment relative to its total frequency of occurrence." (Halliday, 1966, p. 156). Like Firth, he sees collocation as a lexical phenomenon rather than a grammatical one.

However, Mitchell emphasized the necessity of studying collocations in their grammatical structure (Nesselhauf, 2004). Furthermore, he was the first in the Firthian tradition "to attempt to draw a line between collocations and compounds and between collocations and idioms" (Nesselhauf 2004, p. 6). His concept can, therefore, be related to the phraseological and the lexicographical approaches.

With the growth of corpus linguistics there has been increasing interest in collocations. Much corpus based research has emerged (see Benson & Ilson, 1986; Kennedy, 1990; Aijmer & Altenberg, 1991; Sinclair, 1990; Kjellmer, 1995). In general, those researchers purposely adopt a broad interpretation of the term collocation to include recurrent pairs or groups of words which emerged from the corpus more frequently than could be predicted by their individual frequencies as lexical items (Bonk, 2000).

The term collocation is also used in literature commonly (e.g. Ellis, 1996) as a general linguistic one which denotes any poly-word structures or recurrent sequences of language. Bonk (2000) suggests that "this is similar to the definition used by corpus linguists as described above but it is not restricted to the recurrent sequences in a given corpus since it is used to talk about the phenomenon in general rather than a way of extracting them from language data." (p. 4). Some researchers like Nattinger and DeCarrica (1992) expresses this poly-word phenomena by using the term "lexical phrases".

On the other hand, some other researchers use the term collocation for a much more specialized linguistic phenomenon. For example, Howarth (1996) limited the term by suggesting the "restricted collocations" in which one element is used in a non-literal sense and which do not permit many substitutions on the continuum of productivity. In short, in the linguistic approach, collocations are categorised with respect to other word combinations on a certain cline and they are mainly seen in terms of frequency and not so much in terms of semantics.

### **Collocation Use of Non-native Speakers**

Beginning and intermediate learners may not have much available processing capacity to pay careful attention to how words are conventionally combined in speech or in a written text. Howarth (1998, p. 36) claims that the most problematic area for learners in terms of collocational knowledge is made up by the collocations which are on the borderline between free combinations and restricted ones: "It may be claimed that the problem facing the non-native writer or speaker is knowing which of a range of collocational options are restricted and which are free." It may be that even among the best language learners, those completely native-like in their grammar and pragmatics, low-frequency lexical items and restricted collocations will always present problems. This may result either in a complete avoidance of such combinations of words, or conversely in a significant foreign "accent" in their L2 production due to the overuse of unconventional collocations; for most learners it is probably

a combination of both these strategies (Bonk, 2000). As Howarth (1996, p. 160) points out “learners are understandably generally unaware of the large number of clusters of partially overlapping collocations which display complex semantic and collocational relationships. It is of course not only learners who are unaware of this category; it is an area unrecognized in language pedagogy and little understood in lexicography”. It therefore appears that the task of acquiring native-like collocational knowledge in an L2 is a long and difficult one.

### **Collocation and L1 Transfer**

In order to understand the effect of L1 on learning and using of L2 collocations, researchers have tested second language learners’ knowledge of lexical collocations by means of different testing tools like translation tasks from L1 to L2, using collocation tests, sentence completion, multiple choice and corpus analysis based on learners’ written work. For example, the studies of Hussein (1991); Bahns and Eldaw (1993), and Biskup (1992) have tested homogeneous L1 groups of EFL students on cloze and L1-L2 translation-type items and used verb-object restricted collocations as the basis for their tests. Bonk (2001), Gitsaki (1999), and Gyllstad (2007) are some of the researchers who have used collocation tests to measure learners’ receptive and productive knowledge of collocations. In Nesselhauf’s study (2005), he has also focused on the influence of L1 (German) on learning collocations and provided an elaborate description of collocational errors. According to his research (Nesselhauf, 2005), most of the collocations produced by German learners were wrong and the causes of the errors often aroused from non-congruence of collocations in German and English. Also, other studies (Hussein, 1991; Bahns & Eldaw, 1993; and Biskup, 1992) have consistently found that learners commit many errors in such tasks and that they are highly likely to transfer restricted collocations from L1 to the L2 when they are not sure of the correct L2 form. Based on analyses of learners’ output and errors, researchers have identified that most collocational errors stem from first language interference, and that mastering collocations is a challenging task even for advanced level learners (Howarth, 1998; Laufer & Waldman, 2011). Prodromou (2002) claims that it is important to contrast L1 with L2 because it helps students understand how their L1 might be negatively interfering with their acquisition, especially when learning collocations.

### **Method**

#### **Aim of Study**

The following study attempts to carry out an analysis of subjects’ responses to a multiple-choice collocation task in L2 (see Appendix A). A contrastive analysis of the data (in a non-technical sense) has been attempted because the researcher and subjects are from the same L1 background. It is entirely plausible that L1 transfer plays a large part in the recognition of second language collocations when there is a knowledge deficit and that this might be a reflection of a general hypothesis of lexical similarity as a production strategy. Therefore, the data from the present study will be analysed from the L1 transfer perspective. Conventional usages of certain items which appear to be possible substitutions for each other, also called colligation, (e.g. totally, entirely, completely, etc.) may misguide the learner into treating them as semantically the same. Also, Kennedy (2003), in his study, examines how adverbs of degree tend to collocate with particular words. As a result of his study, each selected amplifiers such as extremely or greatly is shown to collocate most strongly with particular words having particular grammatical and semantic characteristics.

The present study differs from research cited above in that it does not limit itself to a single type but aims to cover a wider range of collocation types. Therefore, the data collection instrument of the study is a task (see Appendix A) which consists of four parts as follows: Part A containing “adjective + noun” combinations, Part B containing collocations of “verb +

adverb” combinations, Part C containing “verb + noun” combinations and lastly Part D containing “adverb + adjective” combinations (chosen among nine lexical collocation types mentioned in introduction).

The following research questions are addressed in this study.

1) Are the subjects of the study intuitively capable of judging the appropriacy of various collocation formations?

2) Does L1 transfer play any part in subjects’ judgment of the appropriacy of various collocation formations?

3) Does the subjects’ ability to correctly identify collocational pairs differ according to subcategories of the target items?

### **Participants and Instrument**

The sample of the research consists of 52 third-grade students out of a total of 160 students in the Department of English Language and Literature in a state university in Turkey. In this research, the researcher has developed a tool with a 5-degree system in accordance with the related research in literature; the purpose being to find out to what extent its target population has developed an intuitive knowledge of recognizing possible collocations of the target items. It is expected that the subjects are aware of the fact that all words have their own, unique collocation fields in English as in Turkish. Besides, Turkish students’ having difficulties of recognizing suitable collocation formations in English may result from different semantic and lexical characteristics of these two languages. When there is a knowledge deficit the answers of the students might show the effects of a general hypothesis of lexical similarity as a production strategy and lead to errors in such tasks. It is important to be able to guess the predictability of English collocations for Turkish learners because there are language specific occurrences such as collocations and these structures cannot be translated or transferred directly from one language to the other (e.g. “ready-made flowers” can be formed as a lexically and semantically true collocation in Turkish but such a collocation combination is not possible in English).

### **The Criteria**

As it is seen collocations can be defined in numerous ways (see also Moon 1997), but in this study, collocation is used to refer to a group of two or more words that occur frequently together, and it is not restricted to only one type of collocation combination. A collocation is made up of two parts—a pivot word which is the focal word in the collocation and its collocate(s), the word or words accompanying the pivot word.

For lexicographical purposes in particular, collocations are normally divided into two categories: grammatical and lexical collocations. Grammatical collocations consist of a dominant (content) word, i.e. an adjective, a noun or a verb, and a preposition or a grammatical construction such as a clause or an infinitive. Lexical collocations, on the other hand, consist of two content words and typically reveal the following structures (Benson et al., 1997), the examples to which are provided from LTP Dictionary of Selected Collocations (1997):

Verb + noun:	throw a party / accept responsibility
Adjective + noun:	square meal / grim determination
Verb + adjective + noun:	take vigorous exercise / make steady progress
Adverb + verb:	strongly suggest / barely see

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Adverb + adjective:	utterly amazed / completely useless
Adverb + adjective + noun:	totally unacceptable behaviour
Adjective + preposition:	guilty of / blamed for / happy about
Verb + adverb:	abject poverty / choose badly
Noun + noun *:	pay packet / window frame

\* also known as compound nouns

Collocations consisting of meaningful units were preferred in this study. It was thus decided to search only for the collocates of content words called lexical collocations. In this study, four types of lexical collocations will be analysed and these types are “adjective + noun”, “verb + adverb”, “verb + noun” and “adverb + adjective” combinations.

### Procedure and Data Analysis

Collocations task measured students’ recognition of vocabulary identification. The selection of target lexical items from Cobuild New Student's Dictionary (2002) was based on Heatley et al.’s (2002) three-word base lists. Furthermore, several academic’s opinions on whether the chosen words were within range of the students’ lexical knowledge confirmed our final list of target items. The word range identification of the key and option items according to Heatley et al.’s (2002) three-word base lists stands as follows: the adjective + noun group consisted of 10 items from the first 1000 most frequent range, 5 items from the 2000 and 7 items from the 3000 range; the verb + adverb group consisted of 10 items from the 1000, 8 items from the 2000 and 4 items from the 3000 word range; the verb + noun group consisted of 14 items from the 1000, 2 items from the 2000 and 8 items from the 3000 word list; and adverb + adjective group consisted of 10 items from the 1000, 10 items from the 2000 and 2 items from the 3000 word list. The word range distribution of items under the different categories does not seem to differ in a significant way.

However, the collocational variants of these words were not strictly controlled as they were selected from the ones provided in LTP Dictionary of Selected Collocations (1997). Hence, the study measures not an exact and productive knowledge but an intuitive and receptive knowledge that has developed over the years of L2 education the subjects were exposed to. Some collocations were included in the test purposefully in order to test the effects of L1 transfer. Two distracters were provided for each item in the test. These distracters were supplied from a source on the internet site on teaching English by the BBC and British Council (<http://www.teachingenglish.org.uk>) that listed the possible collocations and the ones that were not acceptable.

In accordance with static group comparison, the tool with its 20 items was applied to a pilot group of 25 fourth-grade students. Having obtained a satisfactory reliability value from the pilot administration ( $\alpha = .69$ ,  $p < .05$ ) the test was applied to 52 third-grade students. Due to their educational background in literature, subjects were assumed to be equipped with a sophisticated level of vocabulary knowledge. The main study yielded a reliability value of .71 at  $p < .05$ . In the analysis of the data obtained from the test, SPSS 15 was used. Descriptive statistics for the results of the collocations test, frequency values for each collocation group, one-way ANOVA results and other related findings are given and discussed in the “Findings and Discussion” section.

### Findings and Discussion

Descriptive statistics obtained for the total of the test administered to the students is demonstrated in Table 1.

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**Table 1:** Descriptive statistics for the results of the collocations tests

<b>Mean</b>	60,48
<b>Std. Error of Mean</b>	1,11
<b>Median</b>	60,0
<b>Mode</b>	60,0
<b>Std. Deviation</b>	8,06
<b>Variance</b>	64,99
<b>Skewness</b>	-,251
<b>Std. Error of Skewness</b>	,330
<b>Range</b>	45,00
<b>Minimum</b>	33
<b>Maximum</b>	78

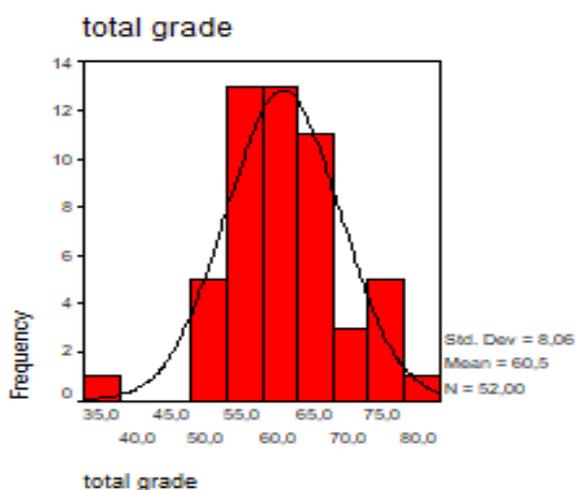
**Figure 1:** Bar-Chart for the students' total grades

Figure 1 shows that students' scores are normally distributed as indicated by the central tendency the mean, mode, median and midpoint (at 60). Normal distribution is often observed in the behaviour of language students (Brown, 1997). A good rule of the thumb to remember is that events tend to approach normal distribution when the number of observations is about thirty. The data will be analysed separately under relevant headings that make up the four sections of collocations in the study.

### Adjective + Noun Collocations

Table 2, which includes five adjective + noun combinations, illustrates the frequencies and percentages of the correct and incorrect responses given to the items which formed the first part of the test (Part A). (For ease of recognition and analysis, all distracter items are listed as the last two lexical items in the list (options d and e), but these items were randomly presented in the main test.)

**Table 2:** Frequency values for “adjective + noun” collocations

Items	Frequency (%) Correct Collocations				Frequency (%) Distracters			
	$\bar{X}$				$\bar{X}$			
1. ability	a) average... 24(53,8)	b) creative... 51(98,1)	c) moderate... 31(59,6)	64,6	d) broad... 25(48,1)	e) definite... 21(40,4)	35,4	
2. category	a) bottom... 25(48,1)	b) definite... 32(61,5)	c) top... 33(63,5)	51,5	d) apparent... 28(53,8)	e) obvious... 32(61,5)	48,5	
3. flowers	a) artificial... 46(88,5)	b) dead... 33(63,5)	c) fragrant... 26(50,0)	61,5	d) dense... 13(25,0)	e) ready-made.. 36(69,2)	38,5	
4. hostility	a) great... 34(65,4)	b) open... 33(63,5)	c) marked... 10(19,2)	40,7	d) imposing... 29(55,8)	e) hideous.. 46(88,5)	59,2	
5. poverty	a) abject... 11(21,2)	b) extreme... 44(84,6)	c) great... 33(63,5)	49,2	d) absolute... 33(63,5)	e) irresistible 31(59,6)	50,7	
Total Mean:	(53,76)				(46,24)			

The mean percentage of correct answers to Part A adds up to 53,76. More specifically, the majority of the subjects have produced correct collocations for nouns “ability”, “flowers” and “category” whereas for nouns of “poverty” and “hostility” there is a higher percentage of incorrect answers. In options 1b “creative ability” and 3a “artificial flowers”, the rate of correct answers is very high (98,1% and 88,5% respectively).

However, there are some collocations in Table 2 that yield incorrect answers for more than 60% of the cases. These options are 2e “obvious category”, 3e “ready-made flowers”, 4c “marked hostility”, 4e “hideous hostility”, 5a “abject poverty”, and 5d “absolute poverty”. In the case of “obvious category”, students might have thought that it is suitable because of the frequent usage of “obvious” to mean “easy to understand and notice”. 3e “ready-made” was a strong distracter since 69.2% of subjects have been attracted to it. There is a Turkish collocation, “hazır çiçek”, which can be translated into English as “ready-made flowers”. This item could be taken as an example of negative transfer from L1. Option 4c “marked” could not be reconciled with the meaning of the head noun “hostility” by most of the students. The word “marked” has two different meanings in English. Its low-frequency meaning of “noticeable” is not commonly known by L2 learners. The frequent meaning of the word as “designed or distinguished by a mark” is perhaps more readily known. Thus, most of the students were drawn to the two distracters which are “imposing” and “hideous”. However, in English, the use of “imposing hostility” and “hideous hostility” does not exist. One can talk about “imposed hostility” but not “imposing hostility”. Similarly, the word “hideous” might have been confused with “hide/hidden”. In option 5a, “abject” can be assumed to be unfamiliar to most of the students and hence has been chosen by a very low percentage. Most of the students have chosen options 5d “absolute poverty” and 5e “irresistible poverty” as the correct collocations. The word “absolute” (meaning complete or total) forms possible collocations with a number of noun constructions, as in the following examples: “I have absolute confidence in her.” or “We don’t know with absolute certainty that the project will succeed.” Unfortunately, though, it is not possible to talk about “absolute poverty” while it is possible to say “extreme/severe poverty”. In 5e, semantically, there is no sense in talking about an “irresistible poverty” as poverty is not a desirable condition of being. Once again, not knowing the meaning of words such as “abject” may lead students to search for the answer in the other options.

### Verb + Adverb Collocations

Table 3, which includes five verb + adverb combinations, illustrates the frequencies and percentages of the correct and incorrect responses given to the items forming Part B.

**Table 3:** Frequency values for “verb + adverb” collocations

Items	Frequency (%) Correct Collocations			$\bar{X}$	Frequency (%) Distracters			$\bar{X}$
6. choose	a)... badly 12(23,1)	b)... blindly 25(48,1)	c)... carefully 47(90,4)	45,7	d)... freely 49(94,2)	e)... openly 20(38,5)	54,2	
7. discover	a)... eventually 39(75,0)	b)... gradually 37(71,2)	c)... recently 39(75,0)	70,8	d)... briefly 14(26,9)	e)... seriously 21(40,4)	29,2	
8. examine	a)... closely 35(67,3)	b)... fully 47(90,4)	c)... critically 43(82,7)	77,3	d)... greatly 11(21,2)	e)... utterly 17(32,7)	22,7	
9. obey	a)... immediately 28(53,8)	b)... willingly 34(65,4)	c)... strictly 44(84,6)	60,3	d)... exactly 35(67,3)	e)... purely 18(34,6)	39,6	
10. quote	a)... accurately 43(82,7)	b)... extensively 33(63,5)	c)... verbatim 7(13,5)	37,7	d)... considerable 28(53,8)	e)... seemingly 35(67,3)	52,3	
Total Mean:				(59,69)			(40,31)	

In this part, items measure to what extent students' awareness of the correct "verb + adverb" collocations have developed. Table 3 shows that the total mean percentage of the correct answers is 59,69%. In some options such as 6c "choose carefully" and 8b "examine fully", most students managed to provide the correct phrases (90.4% for both cases).

On the other hand, in some options, more than 60% of the responses were incorrect. The following distracters were marked by the majority of the subjects: 6d "choose freely" (94.2%), 9d "obey exactly" (67.3 %), and 10e "quote seemingly" (67.3 %). It is interesting that most of the students (76.5%) did not manage to respond correctly to option 6a "choose badly" whereas "choose freely" was chosen incorrectly. One explanation could be that "choose freely" might call to mind the phrase "freedom of choice" and thus appear to be the correct answer. For option 9d, students might have considered the distracter adverb "exactly" in the sense of being "totally", which would have been a correct answer if it stood as an option. For option 10c "quote verbatim", the percentage of correct answers was 13,5%. This result could be interpreted as most students not knowing the meaning of the word "verbatim" because of its rare usage. Hence, most of the students chose distracter 10e "quote seemingly" as the correct answer.

### Verb + Noun Collocations

Table 4, which includes five verb + noun combinations, illustrates the frequencies and percentages of the correct and incorrect responses given to the items which formed the third part of the test (Part C).

**Table 4:** Frequency values for "verb + noun" collocations

Items	Frequency (%) Correct Collocations			$\bar{X}$	Frequency (%) Distracters			$\bar{X}$
11. dream	a) achieve... 36(69,2)	b) sustain... 23(44,2)	c) realise... 28(53,8)	49,6	d) make... 39(75,5)	e) declare... 23(44,2)	50,5	
12. experience	a) describe... 33(63,5)	b) endure... 21(40,4)	c) enjoy... 37(71,2)	53,1	d) try... 29(55,8)	e) conduct... 28(53,8)	46,9	
13. tradition	a) abandon... 41(78,8)	b) adopt... 50(96,2)	c) create... 10(19,2)	58,4	d) bring... 25(48,1)	e) develop... 28(53,8)	41,5	
14. letter	a) deliver... 51(98,1)	b) open... 52(100)	c) seal... 39(75,5)	89,7	d) sustain... 8(15,4)	e) enjoy... 5(09,6)	10,3	
15. denial	a) accept... 35(67,3)	b) believe... 19(36,5)	c) reject... 40(76,5)	53,8	d) manage... 23(44,2)	e) provoke... 33(63,5)	45,4	
Total Mean:				(61,07)			(38,93)	

The mean percentage of correct answers in Part C is 61,07%. Immediately noticeable is the high percentage of correct responses to such items as 13b "adopt tradition" (96,2%), 14a "deliver letter" (98,1) and 14b "open letter" (100%).

However, for some items the percentages of incorrect responses are higher than the correct ones. These items are 11d “make dream”, 13c “create tradition”, 15b “believe denial” and 15e “provoke denial”. Distracter, 11d “make dream”, seems to have confused the students since such a phrase as to “make a dream come true” does exist in English. For 13c, “create tradition”, students might have assumed that tradition is something which is handed down from one generation to another and something that has always existed. The meaning of “tradition” is “way of doing something that has existed for a long time”. Thus, to “create a tradition” might have appeared implausible. Moreover, the percentages show that most of the students (63,5%) chose distracter 15e “provoke denial” instead of choosing the correct option 15b “believe denial”. On the general, the correct answers in this section of the test were higher than the incorrect answers.

### Adverb + Adjective Collocations

Table 5, which includes five adverb + adjective combinations, illustrates the frequencies and percentages of the correct and incorrect responses given to the items which formed the fourth part of the test (Part D).

**Table 5:** Frequency values for “adverb + adjective” collocations

Items	Frequency (%) Correct Collocations			Frequency (%) Distracters			
	16. beautiful	a) amazingly... 48(92,3)	b) extremely... 50(96,2)	c) stunningly... 13(25,0)	66,9	d) inevitably... 11(21,2)	e) entirely... 30(57,7)
17. calm	a) amazingly... 27(51,9)	b) completely... 49(94,2)	c) perfectly... 38(73,1)	69,2	d) radically... 22(42,3)	e) regularly... 16(30,8)	30,7
18. dead	a) absolutely... 37(71,2)	b) nearly... 38(73,1)	c) completely... 41(78,8)	70,0	d) instantly... 21(40,4)	e) boldly... 17(32,7)	30,0
19. fine	a) exceptionally... 37(71,2)	b) particularly... 35(67,3)	c) unusually... 35(67,3)	63,5	d) publicly... 9(17,3)	e) perfectly... 37(71,2)	36,5
20. horrible	a) absolutely... 42(80,8)	b) completely... 44(84,6)	c) utterly... 25(48,1)	66,5	d) terribly... 35(67,3)	e) purely... 7(13,5)	33,5
Total Mean:				(67,23)			(32,77)

Table 5 shows that the percentages of correct responses given by students are higher than the incorrect ones for each item. The mean percentage of correct answers is 67.23%, which yielded the highest success in subjects’ overall performance.

Only three distracters - 16c “stunningly beautiful” (57.7 %), 19e “perfectly fine” (71.2 %), and 20d “terribly horrible” (67.3 %) – pulled the great weight of the answers. When options 16c “stunningly beautiful” and 16e “entirely beautiful” are examined, it can be inferred that our subjects’ are not familiar with the word “stunningly” and so have marked “entirely”, which is commonly used in English as a collocation with many adjectives (e.g. entirely different, entirely clear, etc.). In item 19, most students have marked “perfectly fine” as the correct answer. However, in English, such a collocation is not in use because of the rationality underlying the rules of assigning degrees to adjectives by the use of adverbs. In other words, the adjective “fine” itself indicates a moderate degree (not very bad, satisfactory) and as such the adverb “perfectly” cannot be an accurate modifier of this word. The same situation is observed for item 20 “horrible”. It is possible to express one’s feelings by saying “I am terribly sorry”, “It is terribly cold” in the sense of expressing an extreme situation or state. However, horrible is an extreme situation in itself and therefore cannot be modified by the term “terribly”. Students who are unaware of this distinction may have seen a certain connection between the words “terrible” and “horrible”.

## ANOVA Results

One-way ANOVA was applied to the data obtained separately from each category of collocations to determine whether the subjects' success on each category was significantly different from the others.

**Table 6:** One-way ANOVA results for the differences between collocation groups

	Sum of Squares	df	Mean Square	F	Sig.
<b>Between Groups</b>	320,091	3	106,697	11,22	,000
<b>Within Groups</b>	1939,90	204	9,509	—	—
<b>Total</b>	2259,99	207			

Table 6 shows that there is a significant difference ( $p < .001$ ) among subjects' performance on the subsections of the test, but it is not clear where the difference lies. For this reason, Scheffe's Post Hoc Test was applied to make multiple comparisons of the subsection data.

**Table 7:** Scheffe's Post Hoc Test for the four sections of the collocations test

(I) collocation combination	(J) collocation combination	Mean Difference(I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
adjective+noun	verb+adverb	-1,7885*	,60477	,035	-3,4933	-,0836
	verb+noun	-1,9615*	,60477	,016	-3,6664	-,2567
	adverb+adjective	-3,5000*	,60477	,000	-5,2048	-1,7952
verb+adverb	adjective+noun	1,7885*	,60477	,035	,0836	3,4933
	verb+noun	-,1731	,60477	,994	-1,8779	1,5317
	adverb+adjective	-1,7115*	,60477	,049	-3,4164	-,0067
verb+noun	adjective+noun	1,9615*	,60477	,016	,2567	3,6664
	verb+adverb	,1731	,60477	,994	-1,5317	1,8779
	adverb+adjective	-1,5385	,60477	,094	-3,2433	,1664
adverb+adjective	adjective+noun	3,5000*	,60477	,000	1,7952	5,2048
	verb+adverb	1,7115*	,60477	,049	,0067	3,4164
	verb+noun	1,5385	,60677	,094	-,1664	3,2433

\*. The mean difference is significant at the .05 level.

Table 7 illustrates that "adjective + noun" category of collocations is significantly ( $p < .05$ ) different from the other three categories of "verb + adverb", "verb + noun", "adverb + adjective"; and there is a significant difference ( $p < .05$ ) between "adverb + adjective" and "verb + adverb" categories. Besides these, there are some sections which have not yielded significant differences between them: "adverb + adjective" and "verb + noun" categories ( $p > .05$ ) and "verb + adverb" and "verb + noun" categories ( $p > .05$ ). Subjects' success on these collocation types has not proved to be significantly different from each other.

If we evaluate the outcome of the study from the perspective of subjects' performance under the various sections of the study, subjects have performed significantly poorer with the "adjective + noun" collocations, but their scores from the other three sections of collocations did not differ from each other significantly. These differences cannot be explained with the range differences of the vocabulary items under each section since the differences are too small to have any consequence over the results.

**Table 8:** Homogeneous subsets for the collocation categories

Collocation Combination	N	Subset for Alpha= .05		
		1	2	3
adjective+noun	52	13,3077	—	—
verb+adverb	52	—	15,0962	—
verb+noun	52	—	15,2692	15,2692
adverb+adjective	52	—	—	16,8077
<b>Sig.</b>		1,000	,994	,094

Table 8 gives results for collocation combinations which display different subsets at  $p < .05$  values. The “adjective + noun” combinations form a different construct from the other three categories. The “verb + adverb” and “verb + noun” combinations together form a different construct in themselves; and “verb + noun” and “adverb + adjective” combinations form a separate construct from the other categories. Subjects were least successful with “adjective + noun” collocations (mean = 53.76) and most successful with “adverb + adjective” collocations (mean = 67.23) whereas success on verb collocations (“verb + adverb” and “verb + noun”) seem to be sharing the same success for the subjects of this study.

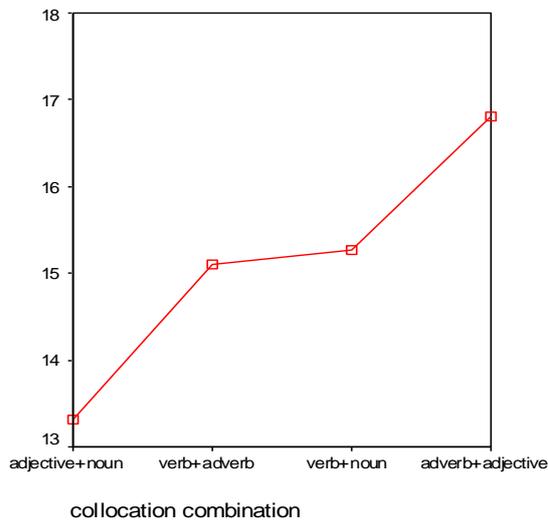
**Figure 2:** Means plot for the collocation categories

Figure 2 illustrates the means plot and helps to visualize the subset distribution of each collocation type.

### Conclusion

According to the data that has been obtained from the present collocations study, it can be argued that most of the third-grade students of The English Language and Literature Department in a state university in Turkey have an intuitive knowledge of recognizing suitable collocation formations. When the cut point for success is determined as 50, only two students scored under this point (33 and 48). The rest of the students' total grades were above this point.

As it was mentioned in “Findings and Discussion”, the questionnaires were analysed under four sections titled “adjective + noun”, “verb + adverb”, “verb + noun” and “adverb + adjective” collocations. Subjects were least successful with “adjective + noun” collocations (53,76%) and most successful with “adverb + adjective” collocations (67,23%). Furthermore, one-way ANOVA was carried out for a multiple comparison of the means and only one

section – “adjective + noun” collocations - yielded scores that were significantly different from the other sections.

Besides the statistical findings discussed above there are some other findings related to students' intuitive knowledge of collocation. These findings are related to students' strategies which they follow while doing the task. Firstly, it can be said that most of the students had the tendency of marking options whose vocabulary meaning was known to them. Moreover, if a word of high frequency were given as the head word and the word pairs displayed the possibility of forming a proper collocation (e.g. seemingly + quote), students chose the option with higher frequency level instead of the key answer whose meaning is not known to them (e.g. verbatim + quote). Secondly, judging by the students' responses, it can be claimed that most of the students tended to use of L1 transfer when they came across a L1 option. Most of them have chosen this strategy while selecting the items but this did not always produce correct responses. L1 transfer does not always facilitate L2 learning. Thus, most of the students chose distractors which seemed possible in L1.

Thirdly, it is seen that words which have wide-spread use in English cause misjudgements in students' responses. For example, vocabulary items such as “entirely, utterly, completely, and absolutely” can be used with most of the adjectives in English and also in Turkish. These adverbs seem quite synonymous in meaning. Because of this reason, in some items of the collocations task, some of synonymous adverbs were intentionally given as alternatives to each other in order to test the students' awareness (see item 20).

Fourthly, a source of error is the assignment of degrees to adjectives. As it is known, adjectives have a very important place in forming collocations. In this context, they form collocations with adverbs in order to specify a certain degree of a quality. From the results of this study, it is understood that some students are not aware of the mismatch of some adverbs with certain adjectives (e.g. terribly horrible). As a conclusion, it can be argued that students in the third year of their language programs are still not sufficiently equipped with the collocational knowledge that will bring them closer to being competent language users.

Finally, it can be said that our results are generalizable only to the population of students who have answered the collocation test distributed in the present study. A contrastive analysis (in a non-technical sense) has been attempted because the researcher and subjects are from the same L1 background. The data have been analysed from an L1 transfer perspective. Due to their educational background in literature, subjects were assumed to have developed an intuition for identifying correct usages of collocations in the L2. The study measures not an exact or productive knowledge, but an intuitive and receptive knowledge that has developed over the years of L2 education. As mentioned before, the selection of target lexical items from Cobuild New Student's Dictionary (2002) was based on Heatley et al.'s (2002) three-word base lists. Furthermore, several academic's opinions on whether the chosen words were within range of our students' lexical knowledge confirmed our final list of target items. However, a word like “abject” may have been outside this range (of 3000 level) which may explain the low rate of correct answers to this specific item. For further studies, it might be suggested that a pre-test of yes/no type which measures the subjects' knowledge of the target vocabulary items can be applied to overcome this uncertainty about the subject input.

In sum, it can be claimed that collocational knowledge is an important component of one's lexical knowledge in general and that it has impact on many aspects of language processing, comprehension and use. Tests of collocational knowledge could provide language professionals and researchers with potentially valuable information on the lexical relations knowledge of their learners since collocational knowledge differs from other types of written language proficiency and can be reliably and quickly tested.

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### Appendix A

Match the given items with three of the following five options to form an acceptable collocation as in the given example.

#### Ex.: reliability

- a) complete...      b) exact...      c) total...      d) utter...      e) definite...

#### Part A (adjective + noun)

##### 1) ability

- a) average....      b) moderate....      c) broad....      d) creative...      e) definite....

##### 2) category

- a) top....      b) bottom....      c) definite....      d) apparent....      e) obvious....

##### 3) flowers

- a) artificial....      b) dead....      c) dense....      d) fragrant....      e) ready-made....

##### 4) hostility

- a) great....      b) open....      c) hideous....      d) marked....      e) imposing....

##### 5) poverty

- a) abject....      b) great....      c) extreme....      d) absolute....      e) irresistible....

#### Part B (verb + adverb)

**6) choose**

- a) .... badly            b) .... blindly    c) ....carefully    d) ....freely        e) .... openly

**7) discover**

- a) ....eventually    b) .... gradually    c) .... recently    d) .... briefly    e) .... seriously

**8) examine**

- a) .... closely            b) .... fully        c) .... greatly            d) .... utterly    e) .... critically

**9) obey**

- a) .... immediately    b) .... exactly    c) ....willingly            d) .... strictly    e) .... purely

**10) quote**

- a) .... accurately            b).... verbatim    c) .... considerable    d) .... extensively    e) ....seemingly

**Part C (verb + noun)****11) dream**

- a) achieve....            b) sustain....    c) declare....    d) realize....    e) make....

**12) experience**

- a) describe....            b) enjoy....        c) try....    d) conduct....    e) endure....

**13) tradition**

- a) abandon....            b) bring....        c) adopt....        d) develop....    e) creat....

**14) letter**

- a) sustain....            b) deliver....    c) open....        d) seal....        e) enjoy....

**15) denial**

- a) accept....            b) believe....    c) reject....        d) manage....    e) provoke....

**Part D (adverb + adjective)****16) beautiful**

- a) amazingly...        b) inevitably...    c) extremely....    d) stunningly....    e) entirely....

**17) calm**

- a) amazingly...        b) regularly....    c) completely....    d) perfectly....    e) radically....

**18) dead**

- a) absolutely....        b) nearly....    c) instantly....        d) completely....    e) boldly....

**19) fine**

- a) publicly....        b) perfectly....    c) exceptionally....    d) particularly....    e) unusually....

**20) horrible**

- a) absolutely....        b) completely....    c) terribly....        d) utterly....        e) purely.....
-