Collocational Knowledge versus General Linguistic Knowledge among Iranian EFL Learners

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Abstract

This study has a twofold purpose. The first and foremost is to see whether there exists any correlation between the collocational knowledge and general linguistic knowledge of EFL learners. The second is to reveal which type(s) of collocation is or are more difficult for EFL learners. To this end, 35 subjects, screened by a proficiency test, were given a 90-item multiple-choice test including lexical collocations (*noun+noun, noun+verb, verb+noun,* and *adjective+noun*), and grammatical collocations (*noun+preposition* and *preposition+noun*). A native speaker checked the final version of the data and necessary corrections were made. The results showed that a) there was no significant correlation between general linguistic knowledge and collocational knowledge of EFL learners, and b) the grammatical collocations were more difficult than the lexical collocations for learners and from among all subcategories, *noun+preposition* was the most difficult and *noun+verb* was the easiest.

Introduction

One of the most important aspects of learning a language is learning the vocabulary of that language and its appropriate use. Since traditional techniques of learning vocabulary–the learning of individual words or memorizing bilingual vocabulary lists–appeared to be no longer tenable, researchers suggested ways for learning multiword phrases, chunks as well as association between lexical items. Anderson and Nagy (1991), for instance, accentuate the importance of deep meanings including collocational properties in words. Students need to know which words go with which other words, how words go together normally, and how we can manipulate these

arrangements to make new meanings for ourselves. Nattinger and DeCarrico (1992) also report on the importance of prefabricated language chunks such as collocations and routinized formulas for language acquisition and use. Gitsaki and Taylor (1997) and Wray (2002) point out that an increase in the knowledge of collocations can result in better performance in the learner's oral skills and even in reading speed.

Vocabulary knowledge involves considerably more than just knowing the meanings of given words in isolation; it involves knowing the words that tend to co-occur with it. If collocational associations are not taught and learned as part of L2 vocabulary knowledge, the resulting irregularities will immediately mark the learners' speech or writing as odd or non-native. Hoey (2005), for example, argues that non-native speakers behave differently with collocations than native speakers, in that the former group learns them in very restricted contexts. Compounding this problem is the fact that the frequency of particular combinations depends upon the genre in which each occurs. Grammatical and lexical collocations, like the accompaniments of nouns with other nouns, adjectives with nouns, verbs with other parts of speech, or many other such combinations, may all show different behavior. This study intends to shed light on this aspect of grammatical and lexical combinations of collocation.

Definitions of collocation

Defining *collocation* is a challenge, even though a number of definitions of collocations have been offered in the literature. *Collocation* is an expression consisting of two or more words that correspond to some conventional way of saying things, or in the words of Firth (1951): "collocations of a given word are statements of the habitual or customary places of that word" (p. 194). A collocation is often defined as either a recurring combination of words that is often arbitrary, or just a recurring combination of a few words without emphasizing its arbitrariness (Sinclair, 1991, p. 123).

Classification of types of collocations

Collocations fall into two major groups: grammatical collocations and lexical collocations (Benson, Benson & Ilson, 1997, p. xx).

Grammatical collocations: Grammatical collocations consist of a noun, an adjective, or a verb plus a preposition or a grammatical structure such as an infinitive or a clause. Examples of grammatical collocations include; *account for*, *advantage over*, *adjacent to*, *by accident*, *to be afraid that*.

Lexical collocations: Lexical collocations consist of various combinations of nouns, adjectives, verbs and adverbs. Lexical collocations, in contrast to grammatical collocations, do not contain prepositions, infinitives or clauses. Benson et al. (1997) distinguish several structural types of lexical collocations: *verb+noun* (inflict a wound, withdraw an offer), *adjective+noun* (a crushing defeat), *noun+verb* (storms

rage), *noun+noun* (a world capital), *adverb+adjective* (deeply absorbed), *verb+adverb* (appreciate sincerely).

Review of the Literature

Collocation has been investigated using three major approaches. The oldest, the lexical approach, goes back to Firth (1951), who holds that meaning by collocation is an "abstraction at the syntagmatic level" and is not directly linked to the "conceptual or idea approach to the meaning of words" (p. 196). Later, this framework was adapted by Halliday (1966) and Sinclair (1991). Another approach, the semantic approach, transcends observation and tries to determine the specific shape collocations take, why words collocate with certain other words, and how the meaning of a word is reduced to its ultimate contrastive elements resulting in the atomization of meaning (Katz & Fodor, 1963, p. 175). In this approach, particular lexical areas can be identified in which each term helps to delimit its neighbors and is delimited by them (Ullmann, 1962, p. 30). Semantic analysis adopts componential analysis on the basis of semantic opposition or dimensions of contrast.

The third approach, which is the concern of this study, is a structural one. This approach takes collocation to be determined by its structural patterns. This grammatical perspective contrasts somewhat from the previous two approaches in that its concentration is chiefly grammatical and lexical (Gitsaki, 1996, p. 17). Lexis cannot be separated from grammar, because the two are distinctive but related aspects of one phenomenon (Bahns, 1993, p. 57).

With respect to grammar and lexis, Kjellmer (1990), in establishing the extent to which an individual word class is collocational or non-collocational, shows that articles, prepositions, singular and mass nouns, as well as the base form of verbs are collocational in nature. In contrast, adjectives, singular proper nouns, and adverbs are not. Kjellmer then concludes that English words are scattered across a continuum that extends from those items whose contextual company is entirely predictable to those whose contextual company is completely unpredictable. Gitsaki (1996), by the analysis of a vast number of collocations, distinguished 37 categories of collocation overall: 8 lexical and 29 grammatical. Lewis and Hill (1997) reduced this number to five main categories: adjective/noun, verb/noun, noun/verb, adverb/adjective, and verb/adverb.

Regardless of any particular approach adopted, a number of studies (e.g., Addison, 1983; Dechert & Lennon, 1989; Bahns & Eldaw, 1993; and Gitsaki, 1996) were carried out using collocations from different dimensions. Addison (1983) in probing the concept of lexical collocations proposed these assumptions:

1) A text structure for a unit of discourse is analogous to that existing at the level of sentence.
2) A text form can become discordant if large enough samples of generically similar texts are examined.

3) An analogous text may be formed by studying the relationship between lexical collocation and topic/comment sequence.

Addison concludes that when a lexical set regularly occurs within the topic portion of sentences, the lexical set will be perceived as representing the point of the text, which can act as a whole theme of the text.

In their study on the acquisition of collocations by advanced learners, Dechert and Lennon (1989) found that advanced English major subjects who had studied English for at least ten years with extensive contact with native speakers could not produce the language that conformed to native speaker criteria (p. 103). Furthermore, their production caused misunderstanding and interrupted comprehension. Dechert and Lennon (1989) maintain that the errors made by the subjects are not grammatical, but lexical ones. In sum, they concluded that collocation is a neglected area of research and language acquisition that deserves careful consideration.

Biskup (1992) focused on finding the main causes of collocational errors. To that end, she conducted a comparative study to observe learners of English whose L1 was either 'genetically' close (German) or more distant (Polish) from English, in order to ascertain whether that distance would influence performance on L2 collocations. The participants, who were advanced students from both language groups, were asked to render native language collocations into English. After analyzing the data, Biskup observed that Polish language students relied more on their L1 but produced fewer incorrect variants than the German language participants. Whereas Polish learners of English appeared to rely on transfer, German learners of English seemed to look for more 'creative' strategies (leading to other error types). She found:

a) The wider the semantic field of a given L1 lexical item, the more interference
b) The more synonyms an item had, the more difficulties learners encountered in producing a restricted collocation
c) In some cases where L2 collocation was a word-for-word equivalent of L1 collocation, learners were reluctant to transfer

Similarly, Bahns and Eldaw (1993) investigated German advanced EFL students' productive knowledge of English *verb+noun* collocations by using translation and cloze tasks. The 58 German university EFL students participating in the study were divided into two groups. One group of 24 students took a cloze test containing 10 sentences, each of which had a *verb+noun* collocation with the verb missing. The other group took a German-English translation test consisting of 15 sentences, each made up by a *verb+noun* collocation in a sentence to be translated into English. They found that in both tests only around half of students' responses were acceptable English collocations. Even in the translation test, in which there was more freedom to paraphrase, students produced more than twice as many errors in their translations of verbal collocates as in their translations of general lexical words. Bahns and Eldaw conclude that collocation is a problem, even for advanced students (1993, p. 102).

Gitsaki (1996), in a comprehensive study, chose three levels of post-beginner, intermediate, and post-intermediate ESL groups to measure learners' knowledge of collocation in three tasks: essay writing, translation, and fill-in-the-blank. There was a positive correlation between proficiency and the knowledge of collocation. The study also showed that the more frequent the collocation type, the earlier it was learned by second language learners.

Nesselhauf (2003) reports on the use of verb/noun collocations by advanced German learners of English in freewriting. Thirty-two essays were collected, revealing that apart from the frequency observed by Gitsaki, there was a great influence from the learners' L1. Nesselhauf found that of all the collocational error types, the most frequent was related to the wrong choice of the verb. They hypothesized that this is because the verb in a collocational set has a restricted sense (p. 239).

Significance and justification

Vocabulary in general and collocation in particular are important to language learning. If collocational associations are not properly taught and learned, the resulting irregularities will immediately mark the learners' speech or writing as problematic and non-native. The studies cited here illustrate that learner attention should be drawn to word combinations from the beginning stages of learning. Adding to the studies cited above, this investigation is an attempt to discover irregularities in Iranian EFL learner knowledge of collocation, in both lexical and grammatical collocations. The results of this study may help teachers and curriculum designers to classify errors in a continuum from the least to the most problematic ones. Since one of the obstacles to teaching collocations systematically, as pointed out by Bahns (1993), is that their number "amounts to tens of thousands," we consider only some of these here. We do so in a classificatory way with regard to their grammaticality (p. 59). Furthermore, we focus on a combination of various grammatical and lexical forms, which can give us a clearer picture of different behaviors of the feature combinations (e.g., *noun+verb, verb+noun*), since it has not been investigated as extensively. The effect of L1 culture on the selection of an appropriate collocation pair or set is another feature of collocation that can be considered a further obstacle.

Method

Subjects

The subjects of this study were 35 students majoring in English Translation and Literature at Shahid Chamran University of Ahvaz, Faculty of Letters and Foreign Languages. They were chosen from among 70 junior and senior university students (32 juniors and 38 seniors) through administration of a proficiency test. The students were chosen on the basis of their scores, from the top score (68 out of 75, the most proficient) to the lowest score (43 out of 75, the least proficient).

Instruments and hypotheses

In order to understand the students' general knowledge of English, and their collocation knowledge in particular, two tests were administered in two separate sessions, three weeks apart:

A proficiency test: A Michigan Test of English language proficiency, which was a combination of various Michigan test versions, was administered to assess participants' general knowledge of English. This test had a total of 75 multiple-choice type items with three parts: structure-35 items, vocabulary-25 items, and reading comprehension-15 items, which consisted of 3 passages, with 5 questions for each passage.

A collocation test: A multiple-choice test of collocation including 90 items culled from the *Oxford Collocation Dictionary, Collins COBUILD Dictionary,* and *Oxford Advanced Learner's Dictionary* was also given. The test evaluated the collocational knowledge of EFL learners. This test, which was made up of both lexical and grammatical collocation, was divided into six parts. Each part offered 15 items on the following types of collocations:

1. noun+noun
2. noun+verb
3. verb+noun
4. adjective+noun
5. noun+preposition
6. preposition+noun

All the collocations were then checked by a native speaker of (Australian) English, who had a B.A. in English language and literature, to verify the correct formation of collocations for the lexical items.

The objective of the study was to find correlations between learners' collocational knowledge and their general English proficiency. To this end, two research questions were formulated:

1) To what extent does there exists a correlation between the proficiency of the subjects and their recognition of collocation?
2) Which type of collocation, among the ones we selected, was most difficult for this group of learners?

Results and Discussion

Results

The correlation coefficient between the two tests was tabulated as follows.

Table 1. Correlation coefficient between proficiency and collocation subcategories

		Prof	Adj + N	N + Prep	Prep +N	V + N	N + V	N + N
Prof	Pearson correlation	1	.159*	.258	.291	.087*	.579**	.240
	Sig. (2-tailed)	0	.362	.134	.090	.619	.000	.166
N		35	35	35	35	35	35	35
Adj + N	Pearson correlation	.159	1	.157	.212	-.005	.372*	.202
	Sig. (2-tailed)	.362	0	.367	.221	.976	.028	.245
	N	35	35	35	35	35	35	35
N + Prep	Pearson correlation	.258	.157	1	.075	.075	-.037	.288
	Sig. (2-tailed)	.134	.367	0	.669	.667	.834	.093
	N	35	35	35	35	35	35	35
Prep + N	Pearson correlation	.291	.212	.075	1	-.126	.484**	.104
	Sig. (2-tailed)	.090	.221	.669	0	.469	.003	.550
	N	35	35	35	35	35	35	35
V + N	Pearson correlation	.087	-.005	.075	-.126	1	.118	.064
	Sig. (2-tailed)	.619	.976	.667	.469	0	.501	.713
	N	35	35	35	35	35	35	35
N + V	Pearson correlation	.579**	.372*	-.037	.484**	.118	1	.452**
	Sig. (2-tailed)	.000	.028	.834	.003	.501	0	.006
	N	35	35	35	35	35	35	35
N + N	Pearson correlation	.240	.202	.288	.104	.064	.452**	1
	Sig. (2-tailed)	.166	.245	.093	.550	.713	.006	0
	N	35	35	35	35	35	35	35

** correlation is significant at .01 level.
* correlation is significant at .05 level.
N= number Prof = Proficiency

The results of the study, presented in Table 1 above, indicate that:

a) There is a weak correlation between proficiency and *noun+preposition*, proficiency and *preposition+noun*, and proficiency and *noun+noun* collocation; a moderate correlation between proficiency and *adjective+noun*, and proficiency and *verb+noun* collocation, and eventually a significant correlation between proficiency and *noun+verb* collocation.

Table 2. Pearson correlation coefficient between proficiency and grammatical collocations and proficiency and lexical collocations

Measures Variables	R	P	N
Grammatical	.16	.4	35
Lexical	54**	.001	35

Based on the data in this table, there is overall a moderate correlation between proficiency and grammatical collocation and a significant correlation between proficiency and lexical collocation.

Table 3. A total correlation coefficient between proficiency and collocation

Measure Variable	R	P	N
Collocation	48	.6	35

**correlation is significant at the .01 level.

The results presented in Table 3 indicate a moderate correlation between the proficiency test as an index of general English knowledge and collocation knowledge.

Table 4. The results of RMANOVA on all types of collocations

Measure Variance source	Sum of squares	DF	Mean square	F	Sig
Factor	158.343	5	31.669	8	.0001
Error	615.990	170	3.623		

DF = degrees of freedom Sig = significant F= frequency
Table 4 shows that F=8 is significant at p < .0001. This indicates a significant difference at least between some variables of the research questions. In order to investigate the points of difference, the Bonferroni statistical test was used, shown in Table 5.

Table 5. The results of Bonferroni for different subcategories

Variables	Mean	Prep+ N	N+ Prep	Adj+ N	N+ N	V+N	N+ V	Gram	Lex
Prep+ N	7.74	—							
N+ Prep	6.40	-1.34*	—						
Adj+ N	8.34	.6	1.94*	—					
N+ N	7.97	.23	1.57*	-.37	—				
V+ N	8.23	.49	1.83*	-.11	.26	—			
N+ V	9.31	1.57*	2.91*	.97	1.34*	1.09	—		
Gram	28.28							—	-5.57*
Lex	33.85							5.57*	—

Gram = Grammatical Lex = Lexical
*The mean difference is significant at the .05 level.

Table 5 shows that some types of collocations have wider differences in degree of difficulty. To be precise, there is a statistically significant difference between the performance of the subjects on *noun+preposition* collocations and other types of collocations. The mean for *noun+preposition* collocations is 6.4, whereas the mean for the others is at least 7.74. This difference is slightly in favor of *noun+verb* collocations, with a mean of 9.31. It also illustrates that the difference between lexical and grammatical collocations on the whole is statistically significant.

Table 6. The percentage of correct answers per category

Type of Collocation	Subtypes	Correct Answers (%)	Total Correct	Mean (%)
Lexical	Noun + Verb Adjective +Noun Verb + Noun Noun + Noun	62.09 55.61 54.85 53.14	225.69	56.42
Grammatical	Preposition + Noun Noun + Preposition	51.66 42.66	94.32	47.16

The following conclusions can be drawn:
a) Lexical collocations are easier to acquire than grammatical collocations. (The mean percentage for lexical collocations is 56.42 and for grammatical collocations is 47.16, shown in Table 6).
b) There is a statistically significant difference between the performance of the subjects on different subtypes of lexical collocation. Among different subtypes of lexical collocation, *noun+verb* appear the easiest to acquire and *noun+preposition* collocations the most difficult. Based on the percentage of correct answers per category in Table 5, the continuum from the easiest to the most difficult ones are:

noun+verb > adjective+noun > verb+noun > noun+noun

c) There is a statistically significant difference between the subjects' performance on two subtypes of grammatical collocation. In grammatical collocation, *preposition+noun* appeared easier for the subjects than *noun+preposition*.

Discussion
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n this section, we first concentrate on the learners' difficulties with collocation in general; then, we focus on the inter- and intra-lingual problems the subjects faced. Finally, we address some major problems learners have that grammatical and lexical collocational patterns have revealed in this study.

An overview of learners' problems with collocations
Learner difficulty with collocations is well-established (Bahns & Eldaw, 1993, p. 104). As Wray points out (2002), collocations can only be learned if they are present

in the input to which learners are exposed (p. 183). Since there does not seem to be any reason to believe that the input directed to learners is simplified with regard to collocational content, Wray draws the conclusion that learners simply do not seem to pay attention to collocational relationships. Furthermore, she hypothesizes that there is a difference in the way native and non-native speakers deal with language. L1 learners start with large and complex strings and do not break them down any more than necessary. In contrast, post-childhood second language learners start with small units, and then build up large strings from these small units. EFL learners usually focus on the individual words and disregard other important information, namely, what these individual words co-occurred with. The contention is that native speakers' treatment of collocations, on the one hand, may be seen as fully formulaic pairings that have become loosened–strings of words that can be separated under certain circumstances. EFL learners, on the other hand, learn collocations as separate words rather than in a collocational context. Thus, it seems that native speakers use a top-down strategy whereas EFL learners adopt a bottom-up strategy–native speakers proceed from whole to parts and non-native speakers proceed from parts to wholes. In that same vein, we suggest that it is the pairing, and particularly the establishment of the strength of the association, that causes difficulties for learners. Warren (2005) claims that while native speakers construct generalized meanings of words by abstracting semantic commonalities from different contextual uses, the non-native speaker is likely to construct a generalized meaning of an L2 word by equating it with some core meaning in the L1 (i.e., a translation equivalent) (p. 16). Warren's (2005) observation about collocations leads us to hypothesize that L1 influence will sometimes make it difficult for learners when producing L2 sequences, or when judging whether a certain sequence is idiomatic. For example, a Persian learner of English who wants to capture the concept of *making a sound* might produce the less common sequence *producing a sound,* since the Persian counterpart would be similar to that construction (see item 6 in the Appendix, section *verb+noun*).

Interlingual and intralingual factors

One probable reason for the subjects' lack of competence in collocation may be due to L1 influence. For example, Martelli (1998) believes that L1 interference accounts for misunderstanding and the generation of wrong collocations. Similarly, Shalev (2000) maintains that students learning EFL tend to make mistakes because of the differences between English and their L1. Of course, there is no way of guaranteeing whether L1 influence actually occurred, but similarity or approximation may be an indication of such influence. For example, for item 8 of our *noun+verb* collocation ("This **color** _____ so wash the shirt separately"), for which *stretches* or *spreads* was chosen by participants, the fact may be that Persian has رنگ پخش شدن and that پخش شدن related to *stretch* or *spread* in meaning, may lead to the assumption of L1 influence. However, the influence of the L1 is not always negative. There could be positive transfer that helps the speaker find the correct combinations. Take the following items for which our subjects were to choose the best collocates of the boldfaced nouns from among the four options provided as alternatives. It seems that the subjects' L1 influenced their performances positively, thus prompting them to

choose *in connection with* in sentence (1), *under pressure* in sentence (2) and *golden* in sentence (3), which are the appropriate answers (see the Appendix).

1) The stereophonic earphones can be used **in connection** _____ the new sound system.

2) If a liquid or a gas is kept _____ **pressure**, it is forced into a container so that when the container is opened, the liquid or gas escapes quickly.

3) Polytechnics present _____ **opportunities** to a bright young lecturer.

Positive transfer can then occur when the target collocations match those of the L1, that is, when collocation has a direct translation equivalent in learners' L1. Conversely, negative transfer appears when patterns in the L2 do not exist in the L1, or patterns in the two languages are different. Consider the following incorrect uses of *from* (instead of *of)* in sentence (4), *ate* for *took* in sentence (5) and *closed alley* for *blind alley* in sentence (6).

4) Nobody refused for **fear** _____ losing their job.

5) She _____ **a bite** out the slab of cake.

6) He took the next turning to the left as he had been told, but found himself in a _____ **alley**.

When teaching collocations, when possible, teachers might compare and contrast similar collocations in the L1 and L2. Learners might thus attend to the lexico-semantic distinctions between the two languages and reduce the errors they make caused by L1 interference. In addition to interlingual factors, intralingual factors may have influenced subjects' performance on collocations. Some instances of this can be seen in the following examples: *chief* for *dean* in sentence (7), *dictates* for *orders* in sentence (8) and *increase* for *prevail* in sentence (9).

7) As expected, the _____ of the **faculty** rejected the proposal.

8) **Convention** _____ that dangerous physical action is the part of heroes, not heroines.

9) I hope that **common sense** will _____.

Therefore, in teaching collocations, both interlingual and intralingual approaches (see section below) need to be addressed. With an intralingual approach, teachers can juxtapose various meanings of a lexical item with different collocates to sensitize learners to the differences. In comparison, an interlingual approach makes use of

current corpora of collocations produced by native English speakers and it facilitates learners' attention to native speaker uses of collocations.

Another probable reason for the difficulty with collocations is learners' acquisition of L2 words individually or in isolation, without adequate attention to the relations that words have with one other. A look at the subjects' performance on the vocabulary part of the proficiency test, which was mainly composed of individual words, indicates that they had a relatively good command of lexical items in isolation. Although they appeared to know the meanings of *big, heavy,* and *smoker*, they produced strings like *big smoker* instead of *heavy smoker*. Such problems arise partly because of the arbitrary and unpredictable nature of collocations. On a more idiomatic level, collocation demands that one word is used rather than another in particular contexts, and this idiomaticity often defies any obvious logic. For example, one can say: *commit a crime* and *perpetrate a crime*, *commit a fraud* and *perpetrate a fraud*. However, one can only say *commit suicide*, not **perpetrate suicide*; *commit a sin*, not **perpetrate a sin*; similarly, *hold a funeral*, but not **hold a burial*, or *make an estimate,* which is frequently used, but not **make an estimation*.

To concur with Hoey's (2005) argument, a further problem for non-native speakers is the meanings collocated words have in different contexts (p. 5). When learners acquire some features of a collocated phrase, they learn how to employ them in restricted contexts. Tied to this is the recurrence of the collocated group of words with psychological associations. This means when one word primes another, it recurs so frequently that the word group becomes easily retrievable for the native speakers. Such priming less inaccessible to non-native speakers because of lower frequency in the input. Even more complicated than this is the phenomenon of dynamicity of language. Since languages change over time, as do the collocational groups, for non-native speakers who are at the periphery of the process of change, the complexity of collocation acquisition is multiplied.

Moreover, lack of cultural competence could also be responsible for learners' failure to do well on culturally-marked collocations. Certainly, cultural knowledge, another dimension embodied in the issue of lexical competence, is a factor that has an impact on collocation knowledge. Teliya and Bragina (1998) argue that the use of some lexical collocations is restricted by certain cultural stereotypes (p. 170). For instance, they stress that metaphorical collocates serve as clues to the cultural data associated with the meaning of restricted collocations. They propose phraseology as a language of culture since cultural stereotypes are most prominent in the idioms of a language. The restricted collocation '*food stamps'* (see item 4 in the Appendix *noun+noun*) is an example of a culturally specific concept, which for the Iranian EFL learners the correct translation would be either 'coupon' or 'voucher.' The word 'coupon' is more likely triggered because the word has a cultural tradition in Persian, almost anything that is rationed can be messaged linguistically by 'coupon.'

Grammatical collocation (noun+preposition and preposition+noun)

In relation to the second research question, the comprehension of grammatical collocations proved to be more difficult than that of lexical collocations. The mean percentage for grammatical collocations was 47.16; for lexical collocations, it was 56.42.

In addition to various hypotheses presented as the probability of subjects' weakness in collocations on the whole, one possible reason for the discrepancy of our subjects' performance on grammatical collocation is the more arbitrary nature of this type of collocation in comparison with lexical collocation. Cobb (2000), for example, claims that all collocations are of an arbitrary nature and there is no logic underlying them (p. 94). He maintains that this arbitrariness, which is more noticeable in the case of grammatical collocations, certainly creates problem for those who are not native speakers of English. Lewis (2000) supports this position and stresses that in English, the unacceptability of some combinations, such as grammatical collocations, is not necessarily based on compatibility in meanings of individual items, but rather on convention. Learners who are not aware of these conventions may produce unacceptable combinations.

A further source of difficulty is the unfamiliarity of subjects with English collocations due to insufficient exposure. The more learners encounter a certain type of collocation, the more they can comprehend and use it. Tajalli (1994) maintains that exposure or lack of exposure to a certain type of collocation influences the learning of that kind of collocation (p. 124). For example, for item 14 of *adjective+noun* collocations (see the Appendix): "If you earn more, you have to pay more for things; if you have to pay more, you want to earn more; so, it's a *vicious circle*, unless wages and prices are frozen," most subjects selected the correct word, which could be because of the subjects' exposure to the language of their textbooks and exposure to teachers' repetitions or classmates using the collocated phrase. However, in item 7 of the *preposition+noun* collocations: 'The judge reminded the witness that he was still _____ **oath**,' only a few of the subjects selected the correct preposition. Conversely, this could be due to lack of exposure to this particular collocation, as it is not used in their textbooks. Hence, it would be wise to attribute the difficulty or ease of some collocations to the extent of subjects' exposure to these types of collocations. For example, our subjects' acceptable performance in *noun+verb* or poor performance in *noun+preposition* collocations may indicate their larger exposure to one form rather than another.

Lexical collocations (noun+verb, verb+noun, noun+noun, and adjective+noun)

In contrast to grammatical collocations, lexical collocations do not contain grammatical words, but consist of combinations of full lexical items (nouns, verbs, adjectives, and adverbs). As put forward in the second research question, it was expected that this type of collocation would be as difficult as grammatical collocation. The data presented in Tables 5 and 6 reveal that this type of collocation created fewer problems for the subjects in comparison to grammatical collocations. One probable reason for this may be that the words in lexical collocations are more

contextually predictable than the structural types in grammatical collocation. Some patterns of lexical collocations such as *adjective+noun*, however, have much looser lexical cohesion, for example: *a great effort*. Native speakers of English can easily think of several other collocating adjectives for *effort* and convey similar meaning, such as: *all-out*, *every*, *enormous*, *strenuous*, *valiant*. Indeed, the variability in phrases of this *adjective+noun* pattern is also sometimes relatively restricted. In the collocation *idle curiosity*, for example, the word *idle* cannot usually be replaced by such synonyms as: *lazy*, *indolent*, *inactive*, or *inert*.

In sum, the main characteristics of lexical collocations are that their meanings mostly reflect the meaning of their lexical constituents and that the sequences of lexical items frequently co-occur, even though most native speakers of English are not aware of collocations. Thus, it is not surprising that to most native speakers of English the word 'commit' (collocator) will spring to mind readily when they use 'murder' (base) in a certain context, but it is not the case for grammatical collocations. Benson (1990), who based his observation on citations from various newspapers and magazines, concluded that "many nonnative speakers of English need help with collocations, especially grammatical collocations" (p. 27). Thus, from the test results as well as the results of other studies (Biskup, 1992; Bahns & Eldaw, 1993; Cobb, 2000) we can reasonably infer that since collocational capacity cannot be spontaneously acquired, the teaching of (grammatical) collocations is vital to the encoding of a language by non-native speakers.

Conclusion
This study investigates the relationship between general linguistic knowledge of EFL learners and their collocational knowledge. The findings of this study defy the argument that EFL learners' collocational knowledge develops concurrently with their general linguistic knowledge. Rather, the results of the study indicate that the learners' knowledge of collocation lags behind their general linguistic knowledge of English. The analysis of the data also reveals that:

1) Lexical collocations are easier to acquire than grammatical collocations.

2) There is a statistically significant difference between the performance of the subjects on different subcategories of lexical collocations. Among different subcategories of lexical collocation investigated, *noun+verb* collocations are the easiest to acquire and *noun+noun* collocations are the most difficult.

3) There is statistically significant difference between the performance of the subjects on two subcategories of grammatical collocation. In grammatical collocation, *preposition+noun* was easier for subjects than *noun+preposition.*

Based on the findings of this study it is suggested that:

1) Particular attention should be paid to the teaching of all types of collocations, especially grammatical collocations, because of the learners' general weakness in these types of collocation.

2) Teaching all types of collocations should start in the early stages of language learning.

3) Those collocations that do not have direct translational equivalence should be emphasized in drills and tasks.

4) Teachers should devise exercises that boost the involvement of learners in the process of recognition and production of collocations.

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Appendix

Noun +Verb

Choose the **verbs** that can best collocate with the **bold nouns**.

1. His latest **album** ………… in the spring.
a) emerges c) comes forth
b) appears d) comes out
2. The **anniversary** of the founding of the charity……….. on the 12th of November.
a) falls c) turns up
b) happens d) takes place
3. The **blame** ………… the police, who failed to act quickly enough.
a) lies on c) sits on
b) lies with d) falls on
4. **Business** is………..for estate agents in the south as the property market hots up.
a) booming c) expanding
b) growing d) prospering
5. After the bomb, an uneasy **calm** ……….. on the city.
a) settled c) reposed
b) rested d) resided
6. 1. If the condition is not treated, the **appendix** can ……… .
a) tea c) rend
b) fracture d) rupture
7. The **clock** on the mantelpiece ……..….. twelve o'clock.
a) said c) pronounced
b) told d) suggested
8. This **color** ……….. so wash the shirt separately.
a) stretches c) spreads
b) runs d) extends
9. I hope that **common sense** will ………..
a) prevail c) increase
b) abound d) widespread
10. **Communication** between the two sides has …………
a) broken down c) collapsed
b) seized up d) failed
11. **Complications** ……….. if the drug is not used properly.
a) advance c) happen
b) spread d) develop
12. **Convention** ……….. that dangerous physical action is the part of heroes, not heroines
a) orders c) dictates
b) decrees d) commands
13. The **fender** of his car was …..…….. in the crash.

a) dented c) penetrated
b) pierced d) crumpled
14. He fell down the steps like a **ball** ……….. on the ground.
a) wheeling c) rotating
b) rolling d) revolving
15. His **horizons** didn't ………… beyond his next night out.
a) stretch c) extend
b) expand d) spread

Verb +Noun

Choose the **verb** that best collocates with the **bold noun**.

1. I'm going to ………… a **chance** and ask her if she wants to go out somewhere.
a) grant c) offer b) make d) take
2. Whose turn is it to …………. the **housework**?
a) perform c) do
b) carry out d) make
3. Can you ……….. an **eye** on my car while I go in the shop?
a) keep c) hold
b) catch d) put
4. He tried to ………… her some **advice** but she wouldn't listen.
a) suggest c) offer
b) make d) give
5. I wonder if you could ………… me a **favor** and carry this box for me.
a) grant c) make b) give d) do6. Could you just stand there quietly without
…………… a **sound**?
a) creating c) making
b) causing d) producing
7. We have to …………. a **vocabulary test** every Friday.
a) do c) perform
b) make d) accomplish
8. He ………… **cold**, developed pneumonia, and that was the end of him.
a) got c) acquired
b) caught d) attracted9. We have to …………. **measures** to curb inflation.
a) adopt c) assume
b) make d) choose
10. A teacher who constantly ………….. his/her **promise** can not be a reliable one.
a) disobeys c) breaks b) violates d) breaches
11. She ……… **a bite** out the slab of cake.
a) ate c) swallowed
b) took d) chewed12. He …………. **tribute** to the guest speaker.
a) paid c) offered
b) gave d) presented
13.Teaching that way is much like ………… **tigers**.
a) training c) domesticating

b) taming d) coaching

14. Eight people were ………… **hostage** for four months.

a) held c) grasped

b) kept d) confined

15. Children were ………….. their **hands** as the train was leaving the station.

a) shaking c) stirring

b) waving d) quivering

Adjective +Noun

Choose the **adjectives** that can best collocate with the **bold nouns.**

1. I don't know him very well. It is just a ……….. **acquaintance**.

a) casual c) spontaneous

b) accidental d) unanticipated

2) He took the next turning to the left as he had been told, but found himself in a ……. **alley**.

a) blind c) closed

c) shut d) blocked

3. She is a ………… **smoker**. That's why she always stinks of smoke.

a) hard c) heavy

b) big d) strong

4. Brenda doesn't like olives, capers or anything with a ………… **flavor**

a) heavy c) hard

b) strong d) powerful

5. The college loses a lot of money through ………… **administration**

a) weak c) low

b) short d) poor6. There is a ………… **network of roads** connecting Glasgow and English

a) complex c) composite

b) compound d) complicated

7. They must have a ………… **dislike** for the job.

a) sever c) strong

b) acute d) intense8. Some times, they are difficult to translate into ..………..

English.

a) correct c) right

b) appropriate d) proper

9. We need a/ an ……….. **tape** so that we can record the film.

a) empty c) clear

b) blank d) clean

10. The results of the research should be used for the ………… **good** rather for individual profit.

a) public c) popular

b) common d) collective

11. My ……….. **intention** was to study all morning, but this turned to be impractical.

a) original c) beginning

b) first d) primitive

12. his ……….. **attempts** to have me dismissed went badly wrong.
a) raw c) primitive
b) crude d) rudimentary

13. Polytechnics present ……….. **opportunities** to a bright young lecturer.
a) prosperous c) precious
b) flourishing d) golden

14. If you earn more, you have to pay more for things; if you have to pay more, you want to earn more; so, it's a/an ………. **circle**, unless wages and prices are frozen.
a) vicious c) invalid
b) useless d) helpless

15. Mrs. Dobson has been a/an ………. **light** in our local society for years.
a) important c) main
b) guiding d) leading

Noun +Noun

Choose the **nouns** that best collocate with the **bold nouns**.

1. The local authority runs an **advice** ……….. in the town.
a) house c) corporation
b) center d) enterprise

2. Three building were bombed last night in an **air** …………. on the city.
a) strike c) assault
b) brush d) storming

3. He has survived several **assassination** …………
a) ventures c) trials
b) attempts d) efforts

4. In the U.S., poor people are given food …….. with which they can get something to eat.
a) stamps c) coupons
b) vouchers d) tickets

5. Education has become an important **campaign** ………..
a) issue c) subject
b) topic d) problem

6. The **conviction** ……….. for rape is extremely low now.
a) proportion c) ratio
b) degree d) rate

7. As expected, the ………… of the **faculty** rejected the proposal.
a) dean c) principle
b) head d) chief

8. He suffered from sever **language** ………….
a) crippled c) impairment
b) damage d) weakness

9. They were kept in a military ……….. **center**.
a) custody c) confinement

b) detention d) guardianship

10. The ……….. of **government** is usually the effective ruler of the country.
a) head c) president
b) chief d) leader

11. What is the …………. of **inflation** in your country?
a) amount c) level
b) height d) rate

12. The extension will provide 600 square meters of new **gallery** ……….
a) area c) scope
b) gap d) space

13. I was aware of a real **generation** ………… between us.
a) difference c) **gap**
b) distance d) breach

14. Many species are threatened in the wild due to **habitat** ……….. by man.
a) ruination c) spoiling
b) destruction d) devastation

15. The value of property almost doubled during the **interim** …………
a) term c) period
b) space d) interval

Preposition +Noun

Choose the **prepositions** that can best collocate with **bold nouns**.

1. He managed to find a job ……….. an **agency**.
a) via c) through
b) on d) within

2. I will tell you the rest ………. **camera**.
a) in c) by
b) at d) through

3. There was enough evidence that he broke the cup ……….. **purpose**.
a) by c) on
b) with d) in

4. There is no need to do any thing ……….. **the while**.
a) in c) on
b) for d) within

5. The prime Minister was ……….. **fire** in parliament for his handling of the budget.
a) under c) on
b) in d) at

6. Although the legislative branch was preserved ……….. **name**, it could not initiate or amend any bills.
a) on c) in
b) by d) after

7. The judge reminded the witness that he was still ……….. **oath**.
a) on c) at
b) under d) in

8. A visit to the flood-stricken area seemed ………… **order**.
a) on c) under b) at d) in
9. He refused ……….. **principle** to understate his income for taxation purposed.
a) in c) under
b) on d) by
10. The date of her birth is ……….. **record** in Leon Country, Florida.
a) in c) at
b) by d) on
11. Frenetic diplomatic activity is now ……….. **way** in at least half a dozen capitals.
a) due to c) under
b) on d) into
12. The Soviet Union deployed an anti ballistic missile system ……….. **violation** of the 1972 treaty.
a) by c) on
b) in d) through
13. It's cheaper if you book the ticket ………… **advance**.
a) at c) in
b) on d) by
14. If a liquid or a gas is kept ………… **pressure**, it is forced into a container so that when the container is opened, the liquid or gas escape quickly.
a) in c) underb) with d) at
15. He studied his books ……….. his father's **advice**.
a) at c) under b) on d) in

Noun +Preposition

Choose the **prepositions** that can best collocate with the **bold nouns**.

1. John's sister is of great **ability** ……….. solving difficult mathematics problems.
a) at c) in
b) on d) for
2. I had great **admiration** ……….. her as a writer.
a) of c) on
b) for d) towards
3. Many scientists believe that there is a need for greater **concentration** ……….. environmental issues.
a) over c) on b) at d) about
4. She was chosen in **preference** ……….. her sister.
a) to c) over
b) for d) upon
5. She now has **authority** ……….. the people who used to be her boss.
a) on c) at
b) over d) upon
6. I've always a certain **fondness** ……….. her.
a) towards c) of
b) for d) in

7. She had little **success** ……….. getting new customers.
a) with c) in
b) on d) at
8. The main **objection** ……….. the plan was that it would cost much.
a) at c) over
b) on d) to
9. The high walls give the garden **protection** ……….. the wind.
a) from c) to
b) against d) of
10. The stereo phonic earphones can be used **in connection** ……….. the new sound
system.
a) to c) of
b) with d) by
11. One should have **confidence** ……….. his own ability.
a) on c) at
b) over d) in
12. Obviously there wasn't any **point** ……….. waiting longer.
a) for c) inb) at d) on
13. Nobody refused for **fear** ……….. losing their job.
a) of c) on
b) from d) over
14. Her **faith** ……….. human nature had been badly shaken.
a) on c) of
b) to d) in
15. They should great **devotion** ……….. each other.
a) towards c) for
b) to d) at