

The Effect of Teaching Collocations on Enhancing Iranian EFL Learners' Reading Comprehension

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Abstract

Collocations might be described as the words that are located or found together in predictable patterns in speech and writing. This quasi-experimental study was designed to examine the effects of collocation instruction on enhancing Iranian EFL learners' reading comprehension. For this purpose, 70 students were chosen from Safir English institute at intermediate level. Their level of English proficiency was determined on the basis of their scores on Nelson proficiency test. Two intact classes were randomly selected as the experimental group and two other classes were selected as the control group for the purpose of current study. Results of paired-sample t-test indicated that the students in the experimental group outperformed the control group in reading comprehension. In fact, teaching collocations could play a significant role in enhancing EFL learners' reading comprehension.

Keywords: conscious-raising, collocation, reading comprehension.

Introduction

Research on collocations has been prevalent for decades and tends to discuss the theoretical and pedagogical perspectives of collocations. The theoretical studies of collocations can be viewed from three perspectives: lexical, syntactic, and semantic. Linguists studying collocations at the lexical level regard collocations as the linear and syntagmatic co-occurrence

of lexical items (Mitchell, 1971; Sinclair, 1966). Collocations are also discussed in terms of their syntactic restrictions (Nation, 2001) and semantic restrictions (Howarth, 1998; Lewis, 1997; Nation, 2001).

On the pedagogical level, linguists and language educators have conducted empirical studies on measuring collocational knowledge (Aghbar, 1990; Hsu, 2002; Zhang, 1993), detecting development of collocational knowledge at different levels (Gitsaki, 1999), and discovering the common collocational errors that the second language learners make (Farghal & Obiedat, 1995; Howarth, 1998). Language educators also provide methods of teaching collocations in classrooms (Lewis, 2000; Woolard, 2000).

Most of the experimental research on collocations explores the use of collocations on productive language, especially in writing, but few empirical studies discuss collocations with respect to receptive skills (reading and listening) and none discuss how collocation instruction may specifically benefit language learners' reading comprehension. However, having a large amount of collocational knowledge may benefit reading/listening comprehension since collocations may help readers or listeners process language in chunks instead of individual words. Due to the lack of empirical studies on collocational knowledge in relation to reading comprehension, this study will explore the effects of collocation instruction on reading comprehension in Iranian EFL context.

Objectives of the Study and Research Question

ELT literature has experienced different trends towards L2 teaching. An overview of the recorded his-

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tory of language teaching shows a move from completely explicit to exclusively implicit language teaching (Larsen-Freeman, 2000; Nunan, 2001). These trends were based on the field participant's conception of how an L2 is acquired. Besides, in each approach, one of the linguistic items received special attention. However, all the trends failed to develop completely proficient speakers (Nassaji & Fotos, 2007).

Further, according to Nassaji & Fotos (2007), consciousness-raising (C-R) is one of the responses to the plea for compensating the limited achievements of the previous approaches. Traits such as developing autonomous learners, making learning a life-long process, and taking learners' individual differences into account has made C-R a sensible alternate for teaching different aspects of L2 (Moritoshi, 2000; Willis & Willis, 1996). Meanwhile, collocation, which has been ignored till recently, has been recognized crucial in language learning and teaching. Many researchers in the field suggest teaching this phenomenon in second/foreign language classes. The way suggested for teaching this linguistic item was C-R activities.

In this research, the researcher tried to investigate the effectiveness of this highly recommended technique for teaching collocation, consciousness-raising, in learning this linguistic item. After devising some C-R activities, based on R. Ellis's weak interface theory, and practicing them in two English language classes, the researcher attempted to answer the question by examining the effect of such activities on learning collocations through comparing the results. In sum, the research tried to find the answer to the following question:

Does collocation instruction, based on consciousness-raising tasks have any effect on enhancing reading comprehension among Iranian EFL learners at intermediate level?

Considering the question, one null hypothesis should be investigated:

Collocation instruction, based on consciousness-raising tasks, has no effect on enhancing reading comprehension among Iranian EFL learners at intermediate level.

Defining the Term "Collocation" and Theoretical Issues on Collocations

Collocations are defined as structured word phrases which bond together and appear recurrently in the usage of English. They have characteristics in-

involved in lexis, syntax, and semantics. On the lexical level, collocations are lexical items co-occurring repeatedly in texts and are more or less prefabricated in nature. For example, the collocations in addition and make a mistake recurrently appear in texts and cannot be substituted by their synonyms. We cannot say "in totaling" and "do a mistake". On the syntactic level, collocations are structural word phrases involving grammatical patterns and are syntactically restricted. For instance, we usually say "look at a picture" but not "look a picture". On the semantic level, collocations are language chunks with semantic restrictions to some degree. Collocations contain those word combinations that are totally literal, partially literal, partially idiomatic, and idiomatic. Some collocations are semantically opaque, but some are obviously transparent. For example, we have the collocation drink tea, which is completely literal, the collocation strong tea, which is partially literal, and the collocation high tea (meaning early dinner in British English), which is idiomatic.

Generally speaking, collocations are structured word phrases which bond together and appear recurrently in the usage of English and are involved in characteristics of idiomaticity, restrictedness, syntactic structure, and frequency of co-occurrence in a corpus.

The term "collocation" is discussed prevalently in many areas of linguistics, such as semantics, systematic linguistics, morpho-syntax, phraseology, corpus linguistics, and lexicography. Collocations are generally defined as words that "fit together" intuitively with great expectation in the syntagmatic and paradigmatic levels. The syntagmatic relation of lexical words, which is horizontal, refers to the collocability of words. The paradigmatic relation of lexical words, on the other hand, which is vertical, refers to sets of words in the same class. For instance, the word "dog" is in syntagmatic relation with "hairy" and in paradigmatic relation with "cat." Collocations are predictable patterns and phrases or groups of words that typically co-occur. They include what have traditionally been considered lexical items, as well as structural patterns which may seem closer to grammar and combinations of words that simply "go together." Collocations include noun phrases like sound investment, wide imagination, and phrasal verbs like make up or other stock phrases like the rich and powerful. Particularly interesting are some subtle and not-easily-explainable patterns of usage that native speakers all

know: why we say a stiff breeze but not a stiff wind while a strong breeze and a strong wind are acceptable.

Among the early studies of lexical combinations, Firth (1957) is known as the first scholar to introduce the term “collocation.” According to Firth (1968), “collocations of a given word are statements of habitual or customary places of that word” (p.181). He proposes that words obtain their meaning from their co-occurrence in texts. The subsequent research attempts to define and explain collocations more clearly and specifically. Cruse (1986) proposes that collocations are a “sequence of lexical items which habitually co-occur” (p.40). Nattinger and DeCarrico (1992) point out that a collocation unit includes a “node” that co-occurs with a “span” of words on either side. They define collocations as “strings of specific lexical items, such as rancid butter and curry favor that co-occur with a mutual expectancy greater than chance” (p. 36). They regard lexical phrases, such as how are you, as collocations with pragmatic functions.

In The BBI Dictionary of English Word Combinations, Benson *et al.* (1997) give the following explanation: “In English, as in other languages, there are many fixed, identifiable, non-idiomatic phrases and constructions. Such groups of words are called recurrent combinations, fixed combinations or collocations” (p. ix). Collocations are combinations of words with a syntactic function as constituents of sentences, such as prepositional phrases (Howarth, 1998). Furthermore, Lewis (1993, 1997, & 2000) indicates collocations are the lexical items that co-occur naturally with deliberate frequency and usually are prefabricated. Carter (1998) claims that a collocation is a group of words that recurrently appear in a language and “these patterns of co-occurrence can be grammatical in that they result primarily from syntactic dependencies or they can be lexical in that, although syntactic relationships are involved” (p. 51). Nation (2001), moreover, declares that collocations are “closely structured groups whose parts frequently or uniquely occur together. We would also expect collocations to contain some element of grammatical or lexical unpredictability or inflexibility” (p. 324).

An existing problem in the study of collocations is determining, in a consistent way, what should be classified as a collocation. In a late research, Nation (2001) proposes ten scales for classifying ranges of collocability. Collocations are expected to be in the higher range in at least several of the scales. The

ten scales include frequency of co-occurrence, adjacency, collocational specialization, grammatically connected, grammatically structured, grammatical uniqueness, grammatical fossilization, lexical fossilization, semantic opaqueness, and uniqueness of meaning. Nation’s ten scales are related to three main linguistic areas: lexical, grammatical, and semantic aspects.

In the lexical perspective, the most obvious scale, as Nation claims, is “frequency of co-occurrence.” That is, collocations should appear recurrently in a corpus and the range of the scale is from “frequently occurring together” to “infrequently occurring together.” This is usually measured by computer-based frequency study. The second scale is “adjacency” which is when the individual words in collocations occur next to each other, such as best regards, or separated by variable words, such as little did x realize. “Collocational specialization” indicates collocability of collocations. The range of the scale is from “always mutually co-occurring” to “all occurring in a range of collocations” with “one bound item” in the middle (p. 331).

In the grammatical aspect, “Grammatically connected” means that there is a grammatical connection between collocates. The scale ranges from “grammatically connected” to “grammatically unconnected.” “Grammatically structured” indicates collocations which are grammatically restricted sequences of words with syntactic nature. The scale ranges from “well structured” to “loosely related.” “Grammatical fossilization” is when collocates do not allow any change in word, or allow only very small changes. The range is from “no grammatical variation” to “changes in part of speech,” with “inflectional change” in the middle.

In semantic perspective, “Lexical fossilization” means the degree of fixedness of the lexical units. The range of the scale is from “unchangeable” to “allowing substitution in all parts” with “allowing substitution in one part” in the middle. “Semantic opaqueness” is when the meaning of collocations cannot be predicted from the meaning of the parts. The scale ranges from “semantically opaque” to “semantically transparent.” “Uniqueness of meaning” means some collocations have only one meaning while some may have more than one meaning. The scale ranges from “only one meaning” to “several meanings” with “related meanings” as the mid-point.

Collocations can involve a range of different syntactic patterns. The lexicographer, Benson

(1985), classifies collocations into two main types: lexical collocations and grammatical collocations. A grammatical collocation is a recurrent combination of a dominant word (verb, noun, adjective) and a grammatical word (preposition), such as attach to (verb and preposition), anxious about (adjective and preposition), and a choice between (noun and preposition). Furthermore, Nation (2001) identifies collocations as grammatically connected, grammatically structured, having grammatical uniqueness and grammatical fossilization, and suggests involving syntactic structure in the study of collocations within the lexis level.

The Benefits of Collocations in Second Language Acquisition

The importance and value of collocations for the development of L2 vocabulary and communicative competence has been emphasized by a number of researchers (Cowie, 1992; Lewis, 1997). In an early study, Brown (1974) underscores that collocations enhance improvement of learners' oral communication, listening comprehension, and reading speed, and that teaching collocations enables learners to be aware of language chunks used by native speakers in speech and writing.

Channell (1981) supports Brown's statement and affirms that heightening learners' awareness of collocations is a very efficient way of increasing their communicative power. Nattinger (1980) asserts that language production includes "piecing together the ready-made units appropriate for particular situations and that comprehension relies on knowing which of these patterns to predict in these situations" (p. 341). Cowie (1988), furthermore, claims that institutionalized units (lexical phrases and collocations) serve communicative needs and enable individuals to reuse and create the units. He indicates that stability and creativity of institutionalized units are complementary and interactive factors in vocabulary use and suggests vocabulary teaching should keep a balance between lexical phrases and collocations.

Moreover, Nattinger (1988) maintains that collocations are useful in enhancing comprehension for the associations of words which assist the learner in committing words to memory and also permit people to predict what kinds of words may be found together. Collocations are also useful for teaching language production because learners will subconsciously notice certain lexical restrictions while memorizing collocations. Moreover, teaching lexi-

cal phrases (collocations with pragmatic functions) will lead to fluency in speaking and writing because they shift learners' concentration from individual words to the larger structure of the discourse. Nattinger also provides some methods of teaching lexical phrases and claims that learners will gradually generate the patterns after exposure to fixed phrases.

In subsequent research, Aghbar (1990) in his study emphasizes the importance of collocations and indicates that the reason EFL learners have poor performance in the test of short formulaic expressions is not simply a lack of vocabulary proficiency but insufficient acquisition of language chunks. He argues that the knowledge of formulaic language consisting of idioms, proverbs, sayings, collocations, short set expressions, and long set expressions is a vital element of language capability and is used to distinguish native speakers from non-native speakers. Nattinger and DeCarrico (1992), in their book *Lexical Phrases and Language Teaching* also regard formulaic units or lexical phrases, including collocations, as the very center of language acquisition, and they provide some applications of lexical phrases for language teaching, including teaching spoken discourse, listening comprehension, reading, and writing.

In recent years, more and more researchers and language teachers have advocated the significance of collocations in language development and teaching. Collocations are regarded as an important part of L2 lexical development (Ellis, 1996). Leffa (1998) also points out, in his research, that collocation is superior to using encyclopedic knowledge to solve lexical ambiguities. Moreover, in the book *Teaching Collocation: Further Developments in the Lexical Approach*, language teachers (Conzett, 2000; Hill, 2000; Lewis, 2000; Woolard, 2000) state the value of collocations and provide practical and useful ways of teaching collocations. As Ellis (2001) argues, collocational knowledge is the essence of language knowledge.

Researchers notice the benefits of collocation instruction in improving not only learners' lexical competence but also their grammatical proficiency. Hunston and Francis (1998) indicate that syntax and lexis are completely interdependent and "pattern and meaning are strongly associated" (p.11). Single-item vocabulary instruction will only focus on the development of lexical knowledge, but collocational instruction will involve the growth of syntactic knowledge. Syntactic knowledge and lexical knowledge cannot be separated, but learners more read-

ily acquire syntactic information through the lexicon (Gass, 1999; Paribakht & Wesche, 1999). Taylor (1983) also proposes various reasons for studying words in collocations. He claims that words naturally associated in text are learned more easily than those not so associated, and that vocabulary is best learned in context. Furthermore, he declares that context alone is insufficient without deliberate association, and that vocabulary is a distinct feature of language which needs to be developed alongside a developing grammatical competence.

In sum, collocations are significant and unique, and indeed not only improve learners' language competence (both perception and production) but also help learners approach native fluency.

Empirical Studies on Collocations

Empirical studies on collocations have primarily focused on four aspects: measuring collocational knowledge, development of collocational knowledge, pedagogical aspects on collocations, and types of collocational errors.

Among the researchers, Channell (1981) was one of the earliest researchers to examine L2 knowledge of collocations by using a "collocational grid," which tested adjectives plus nouns, and found that the students fail to detect many acceptable collocations even though they know the tested individual words. She concludes that it is vital to encourage learners to notice collocations, which will enhance their language learning.

Following Channell, Aghbar (1990) conducted a pilot experiment with a set of verb-noun combinations such as to realize goals and to achieve success. In his study, there were three groups including 27 professors, 44 American college students, and 97 ESL students at Indiana University of Pennsylvania. He used a cloze test consisting of 50 sentences with verb-noun combinations. The results show that native speakers with higher English proficiency produced more appropriate answers than native speakers with lower English proficiency and nonnative speakers. Moreover, Aghbar found that ESL students tended to use "get" in place of other more desirable verbs, for example, get knowledge, get independence, and get admission. He concludes that ESL learners need to acquire not only a large body of vocabulary but also learn how words combine in collocations if they aspire to achieve native-like fluency.

The development of collocational knowledge in various proficiency levels has also caught the attention of linguists. In current research, Hsu (2002) con-

ducted a qualitative study which observed the development of collocational proficiency in a workshop for general business purposes for Taiwanese college students. The results revealed that explicit teaching on collocations seems to help students learn new collocations. The results also showed that the relationship between the development of students' proficiency and the gain of collocations is slightly positive. Moreover, Hsu found that possible factors affecting students' collocation learnability include L1/L2 differences, learning experience outside classrooms, teacher's instruction, degree of idiomaticity of chosen collocations, and frequency of collocations.

Regarding the studies on pedagogical aspects of collocations, some researchers have focused their studies on the pedagogical aspects of collocations in efforts to give language teachers pragmatic advice. Cowie (1992) conducted a comparative study to investigate verb-noun collocations learning in a single news item and an editorial written on the same subject. He learned that news items often use well-established collocations while editorials may use many unexpected word associations. Cowie suggests that the teaching of ready-made units at a basic level of discourse is as important as lexical innovation, which many theoreticians may tend to recommend too early.

In a later investigation, Farghal and Obiedate (1995) also conducted a similar study which helped to substantiate that collocations are an important, but neglected, variable in EFL classes. They used two questionnaires consisting of twenty-two English collocations on topics such as food, clothing, and weather. The first questionnaire was a "fill-in-blank" form testing collocation pairs and the second was a translation test. There were two groups of subjects: one had 34 English major college students while the other had 23 English majors at the Higher College for the Certification of Teachers. The results show that learners adopt four different strategies of lexical simplification, namely synonymy, transfer, avoidance and paraphrasing, to complete their tests. The most frequent strategy adopted by both groups was synonymy. This could be explained as a direct result of the unawareness about the collocational restrictions of lexical items.

Collocation Instruction and Reading

Brown (1974) underscores that collocations enhance improvement of learners' oral communication, listening comprehension, and reading speed, and that teaching collocations enables learners to

be aware of language chunks used by native speakers in speech and writing. Alexander (1984) asserts that the learning process may benefit from the three C's of vocabulary learning: collocation, context and connotation. Collocations and context have a strong connection and both are important in developing reading comprehension, for "every useful collocation is another step towards understanding the concept of a word" (Brown 1974, p.3) and helping learners infer meaning from context. Nattinger (1980) proposes that comprehension relies on knowing the patterns of the ready-made units to make a prediction in various communication situations. Collocations are useful in enhancing comprehension because the associations of words, which assist the learner in committing words to memory and also permit people to predict what kinds of words may be found together, enable learners to guess the meaning after hearing or reading only the first part of familiar collocations (Nattinger, 1988). Cowie (1992) found that a large number of familiar and stable collocations appear in newspaper writing and emphasized essential receptive as well as productive language competence.

ESL/EFL educators also suggest teaching collocations through reading. Ooi and Kim-Seoh (1996), in their study, point out that students have inadequate knowledge of correct collocations, and suggest that teachers can teach collocations through reading to complement insufficiency of lexical competence. Conzett (2000) asserts her frustration about the fact that students in her reading and writing classes often use their new vocabulary in the wrong way when they move from receptive to productive language. She indicates that teaching collocations can complement the deficiency of vocabulary instruction in reading and writing. Training students to observe and note collocations in reading will gradually shift students' focus away from individual words to chunks of language (Conzett, 2000). When learners gain competence in recognizing collocations and collecting collocations, they may enhance their retention. Moreover, through subsequent analysis of what they have learned in chunks, learners may be assisted in acquiring other aspects of language such as vocabulary and grammar.

Methodology

Participants

The participants in the study were selected from four intact classes consisting of 70 EFL Intermediate

learners in Safir Language Institute in Tehran, Iran. Subjects include both male and female, had a mean age of 24, and had been studying English as a foreign language at least for five years. Their level of English proficiency was determined on the basis of their scores on Nelson proficiency test. Two intact classes were randomly selected as the experimental group and two other classes were selected as the control group for the purpose of current study. However, some participants were excluded from the data analysis when they failed to take the pre-experimental test, missed some of the sessions in the experimental stage, or failed to answer the questionnaire. Because of this, members in the groups were not equal. Finally, there were 28 students in the experimental group and 30 students in the respective control group. Therefore, the final total number of the sample was 58 subjects.

Instrumentation

Three reading passages

In order to test the level of reading comprehension of the students selected for this study, three passages were used. Participants had to read the texts and then answer the reading comprehension tests. Three reading passages were elicited from magazines and newspaper as reading materials. As far as the criteria for the selection of these passages, two should be considered: First, the length of the article. The texts should not be too long or too short and it should be around the students' reading books. Because of this, some parts which were difficult to understand or had a lot of difficult words were modified or deleted. Second, the articles had to include a certain number of collocations for the purpose of this study. The three selected texts had about 40 collocations. In addition to the above-mentioned criteria, the topic chosen for this study should be interesting and enjoyable for the participants. Therefore, these topics were examined very carefully before selection.

Reading comprehension pretest and posttest

After selecting three reading comprehension passages, as described in the above section, by taking the level of difficulty into account as pretest, the present researcher extracted some questions from the three selected passages to check the reading comprehension of the students after reading them.

According to Nuttall (1982), a test can tap at least four types of meaning separately or simultaneously including grammatical meaning, informational meaning, discourse meaning, and the

meaning conveyed by the writer's tone. However, questions on writer's tone were included because assessing the meaning conveyed by the writer's tone is most appropriate for testing advanced reading skills. Because the students might answer multiple-choice tests by chance, the test questions included for the purpose of this study focused only on checking informational meaning and discourse meaning.

Therefore, the four cued written recall test were designed to detect the level of the students' understanding of the main ideas and the supporting details since the researcher wanted to focus only on testing the participants' reading comprehension. Each test included ten questions that gave away some of the details of the article and its vocabulary. Those questions were not easy to answer for the students if they were not able to fully comprehend the texts. Totally, 30 questions were selected as the pretest of this study.

Further, this test was adapted with the guidance of an experienced test expert and pilot tested with some Iranian students studying English in the same grade as the subjects in the present study. Internal consistency reliability for the instrument was estimated by computing Cronbach's alpha coefficients. The overall test Cronbach's alpha was .72. This implies that the test has sufficient internal consistency in measuring the construct under investigation.

In order to determine the validity of the tools utilized in the study, the researcher asked two university teachers to offer an unbiased judgment as to whether the tests have content validity (Hughes, 1989, p.27): one of them was an Iranian EFL teacher holding PhD degree in Applied Linguistics and the other one was an Iranian teacher pursuing his doctoral degree in TEFL. In addition, the researcher asked the teachers of the selected intact classes for the present study in both contexts to express their comments. After taking their comments into account, some modifications were made to the questions before the study was formally conducted.

As far as the posttest of this study is concerned, the researcher applied the same pretest as posttest even though some believe in memory effects for the short period experiment of 4 weeks. According to Hughes (1989), "subjects are likely to recall items [...] and] make same responses, [which results in] the reliability spuriously high (p. 39)". In addition, the researcher decided to conduct another pilot study after one month in an Iranian context to see the effect of memory during this time gap between pretest and posttest. The reliability coefficient for pretest and posttest during this pilot study was mentioned above.

Procedures

The four classes involved in the study were randomly chosen from intermediate students studying English in Safir English institute. Seventy students participated in the testing. First, the students were given the Nelson proficiency test. Then, the four intact classes were randomly assigned to one experimental group and one control group. After they were assigned to two groups, the reading pretest was given to all participants in two groups. In order to see whether there is any significant difference between the two groups or not before intervention program, the scores obtained from this test were analyzed.

Then, the experimental group was given collocation treatment while there was no treatment for control group. In other words, collocations used in the reading pretest were taught to the students in this group. In order to teach these collocations, they were chosen from the text that they read in the pretest before without any access to reading texts themselves. There were about 30 collocations selected from each reading text and there were a total of three teaching lists of collocations. The procedure of collocation instruction included teaching and recognizing collocations, giving examples, and practicing activities, all of which were designed to enhance the participants' understanding of collocations. The native language was used only as needed in explaining collocations.

After teaching the collocation used in the reading texts, students were asked to read the comprehension reading texts again and answer the comprehension tests at the end of each text. It should be pointed out again that there was no difference between pretest and posttest in this study but there was one and half month time between pretest and posttest.

As far as the control group was concerned, the participants received no instruction related to the text before they read the text again in the posttest stage. In other words, they had to comprehend the provided text without any help and finish the reading comprehension posttest.

Results and Discussion

In order to answer the research question raised for the purpose of this study, the data were analyzed as follow:

Before answering the research question, we wanted to see whether there is any significant difference between subjects in control and experimen-

tal group before any intervention program takes place in the experimental group classrooms. Table 1 and 2 indicate the results of data analysis. As it is clear from table 2, no significant difference was found between the control and experimental group before collocation intervention program for experi-

mental group ($F=.887$; $P=.350$). Therefore, we can conclude that if there is any significant difference between these two groups after teaching collocation used in reading texts for experimental group, we can relate these results to the effect of the intervention program in this study.

Table 1. Descriptive Statistics for pretest in experimental and control group.

Group	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Control	30	16.20	2.772	.506	10	20
Experimental	28	16.82	2.195	.415	11	20
Total	58	16.50	2.508	.329	10	20

Table 2. Results of ANOVA for mean pretest scores of samples in experimental and control group in Iranian EFL context.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.593	1	5.593	.887	.350
Within Groups	352.907	56	6.302		
Total	358.500	57			

Table 3. Paired sample test for pre- and posttest in experimental and control group.

Group	Pair	Mean	SD	Std. Error Mean	T	df	Sig (2-tailed)
Control	Pre- and posttest	-.267	1.437	.262	-1.017	29	.318
Experimental	Pre- and posttest	-1.643	1.062	.201	-8.189	27	.000

Table 4. Descriptive Statistics for experimental and control group in Iran.

Group	Test	N	Mean	Std. Deviation	Std. Error
Control	Pretest	30	16.20	2.772	.506
	Posttest	30	16.47	2.193	.400
Experimental	Pretest	28	16.82	2.195	.415
	Posttest	28	18.46	1.551	.293

Now, in order to answer the research question, data were analyzed in both control and experimental group according to table 3 and 4. As it is evident from Table 3, there is no significant difference between pre- and posttest in control group in Iranian context ($t=1.017$; $P=.318$) while with regard to the ef-

fect of teaching collocation used during reading texts on improving EFL learners' reading comprehension, results of data analysis (t-test) in table 3 above indicate that there is a statistically significant difference between students' performance in reading comprehension in pretest and posttest ($t= 8.189$; $P=.000$).

On the other hand, by looking at Table 4, subjects scored higher in posttest ($M=18.46$, $SD=1.55$), when they were taught the existing collocation within the reading texts, than pretest (without teaching collocations) ($M=16.82$, $SD=2.195$). By taking the results of data analysis into account, the first hypothesis (Teaching collocations has no effect on reading comprehension among EFL intermediate learners) is rejected. In other words, teaching collocations could play a significant role in enhancing EFL learners' reading comprehension.

Conclusions

The overall purpose of the current study was to assess the performance of Iranian-speaking learners of English as a second/foreign language on tests evaluating their use of English collocational knowledge. The study examines the L2 knowledge of collocations in relation to the effect of the learners' language environment (ESL/EFL), productive and receptive knowledge, and types of collocations (verb-noun, adjective-noun, and verb-preposition).

In general, learning vocabulary can play a significant role in reading and other components of language. As far as the learners in Iranian context is concerned, I think the lack of essential vocabulary can be regarded as one of the most common reasons for students' inability to express themselves in English in Iranian EFL context. Another problem is that students cannot use English outside the classroom in real life situations in spite of studying English for years. Furthermore, they have a lot of problems in finding suitable collocates of words. Regarding the reasons for these problems, we can refer to the existing differences between the word order in Persian and English. Some of the students cannot understand a reading comprehension text mostly because they are well-familiarized with collocations. I believe that the result of this study may be helpful for teachers and students in terms of becoming familiarized with a comparatively new technique which will be helpful in their vocabulary development. According to Nist and Simpson (1993), knowing the definition of a word is important and may be sufficient in many situations, but it is just a beginning point. They also emphasized that a memorized definition is often the tip of the iceberg, the part mistakenly believed to be the total iceberg because it is so visible and obvious. Beneath the surface of the water is a much larger mass of ice which is far more important. Regarding this, we can come

to this conclusion that learners' explanation about knowing the definition of a word which we think one of the classical vocabulary teaching techniques supports our assumption that classical vocabulary teaching techniques do not contribute to the development and retention of new vocabulary items.

Further, Maghsodi (2010) confirms the above-mentioned idea by stating that even though memorizing terms with their respective translations is quick and preferred by learners, it is superficial and does not let students use the needed vocabulary correctly in context.

The result of this study also supports what Hsu (2010) did in his research. He investigated the effects of direct collocation instruction on Taiwanese college English majors' reading comprehension and vocabulary learning. He concluded that direct collocation instruction improved the subjects' vocabulary learning and improved retention. Finally, he suggested that collocation instruction could be worth while to explore as a teaching option.

However, the result of our study was against the study done by Altinok (2000). He concluded that teaching words in collocations did not result in better learning for the collocation group in study. Although teaching words in collocations did not produce any statistically significant difference in learning new vocabulary items, she still suggests the idea that collocates of words should be taught when presenting new vocabulary.

On the whole, our findings have supported the previous studies on collocation such as Maghsodi (2010), Hsu (2010), Nist and Simpson (1993) whose results emphasize its positive effect on foreign language learning in many aspects.

In conclusion, the results of the current research has supported our hypothesis that teaching collocations and accordingly learning vocabulary is an effective strategy which positively contributes to the development of reading comprehension.

Theoretical and Pedagogical Implications

This study used quantitative methods in seeking to determine the effects of teaching collocation on enhancing reading comprehension. As such, it is a unique direction in research on collocations. However, this can be regarded as a starting point, and further research in this area undoubtedly will be essential. Several suggestions are provided here for future research.

This study was done with students studying English at one of the English institutes in Iran, it

would be interesting to replicate this study with other groups of learners and different nationalities. On the other hand, this study focused on intermediate students. It would be valuable to study the relationship between knowledge of collocations and reading comprehension at different proficiency levels, especially at the beginning level, to see how the beginners comprehend texts although they have been equipped with limited knowledge of collocations.

Another suggestion is to compare the collocation test and reading comprehension test when students are taught with methods of instruction. The collocation test should be given to different proficiency levels with a great number of subjects to study the relationship between knowledge of collocations and reading comprehension.

Another suggestion would be to conduct a similar study but using qualitative methods to observe EFL learners' subtle progress and their reactions to collocations and collocation instruction while they engage in collocation instruction. By detecting EFL learners' improvement in the process of learning collocations and their reactions to learning collocations, researchers have the chance to study how EFL learners digest their learning of collocations, internalize them, and turn that knowledge into their capability of comprehending texts. In fact, it is satisfying to investigate how EFL learners acquire collocational knowledge and turn their input into output, which enables EFL learners to comprehend texts more easily.

Regarding pedagogical implications, the current study came to this conclusion that there is a positive correlation between knowledge of collocations and reading comprehension. The findings seem to imply that knowing more collocations could help EFL learners enhance their level of reading comprehension. As some participants in this study believed, collocations cannot be regarded as something that EFL learners could acquire without any instruction; therefore, it is essential to incorporate collocation instruction into EFL reading classes. In addition, it is important to raise EFL teachers' awareness of the existence of collocations and of the benefits of collocation instruction. However, it is necessary for EFL teachers to develop their own knowledge of collocations to help their instruction become more authentic. According to Farghal and Obiedat (1995), language instructors might not have sufficient collocational knowledge to enable them to be regarded as qualified language teachers.

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