

On the Impacts of Four Collocation Instructional Methods: Web-Based Concordancing vs. Traditional Method, Explicit vs. Implicit Instruction

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Abstract

Due to the fact that collocations have been considered as one of the main concerns of both EFL learners and teachers for many years, the present study has dealt with this issue in a three-dimensional way. First, it compared the efficiency of teaching collocations both through web-based concordancing practices and through traditional methods. Second, it investigated and compared the impact of implicit and explicit collocation teaching on the students' learning. Third, it examined the effect of L1 (Farsi) on collocation learning; in other words, the effect of congruent (those collocations which have equivalent in Farsi) and non-congruent collocations. Fifty-four EFL students participated in this study. At the beginning, the researchers gave the participants a Michigan test to select those with the same level of proficiency. There were two treatments: A and B, the former investigated the effect of concordancing and traditional approaches, and the latter examined the implicit and explicit collocation teaching. In both treatments, learners were randomly divided into two experimental and control groups. There were both a pre-test and a post-test to determine the effect of treatments. Subsequently, after obtaining the data, some statistical analyses (t-Tests) were performed. The results indicated that concordancing approach was highly efficient in teaching and learning collocations, and participants' scores learning collocations through this method were higher than learners' scores in traditional method (especially in learning non-congruent collocations that the difference was significant); in addition, learners' performance in the group receiving explicit instruction of

collocations was meaningfully better than those receiving implicit instruction through mere exposure.

Key words: Collocation Learning; Web-based Concordancing; Traditional Method; Explicit Instruction; Implicit Instruction; L1

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INTRODUCTION

Vocabulary is an essential component of successful communication (Widdowson, 1989). In the last fifty years, the crucial role that vocabulary has played in second language learning and teaching has been repeatedly acknowledged in theoretical and empirical SLVA researches. Hence, Hunt and Beglar (2005) argue that "the heart of language comprehension and use is the lexicon", an idea shared by Lewis (2000) who states that "the single most important task facing language learners is acquiring a sufficient large vocabulary".

The important point is that learning words in isolation does not necessarily help L2 learners become successful communicators, since many parts of language consist of prefabricated chunks so that learners have to acquire not only the new words but also their collocations.

Collocations can be defined in numerous ways, but the most commonly shared definition of collocations is the tendency of one word to co-occur with one or more other words in a particular domain (Nation, 2001; Nesselhauf, 2003; Hsu, 2007).

Using collocations is probably the most important part of turning passive words into active ones; therefore,

collocation is a central component in the acquisition of a creative language system (Durrant, 2008). Moreover, many researchers have proposed that knowledge of collocations can help language learners speak more fluently and they would be able to process and produce language at a much faster rate (Brown, 1974; Nation, 2001; Schmitt, 2000; Hsu & Chiu, 2008; Forquera, 2006). Pursuing this, Lewis (2000) claimed that collocations provide increased accuracy in language use even more than using grammar rules. In addition, it has been found that collocation knowledge has some effects on learners' general language proficiency (Nesselhauf, 2003), and it leads to improvements in learners' writing ability and reading comprehension ability (Liu, 2000; Lin, 2002; Hsu & Chiu, 2008). Collocation knowledge can also expand second language learners' mental lexicon (Forquera, 2006) and help learners' memory.

Despite the importance of collocations, researchers have indicated that collocations are an inherent problem for L2 learners and one of the difficult aspects of vocabulary learning for learners of a foreign or second language including advanced learners and professional translators and they continuously stumble over which words go hand in hand with which appropriately (Taiwo, 2004; Hüttner, 2005; Walsh, 2005; Millar, 2005; Martyńska, 2004; Wray, 2000; Bahns, 1993).

Although it is generally accepted that collocations are both indispensable and at the same time problematic for foreign language learners and they therefore should play an important role in second language acquisition (SLA), learners' difficulties with collocations has not been investigated in detail by EFL practitioners so far (Nesselhauf, 2003).

If language teachers and learners are to engage effectively with collocations and to integrate them into the language syllabus in a principled way, one important question needs to be answered here which is how collocations can be best instructed in a practical domain.

Traditionally, teaching collocations was performed by classroom teachers, but such teaching methods were time-consuming and thus very demanding on the part of teachers. However, these days, the introduction of technology-supported learning tools into the language classroom, and using concordancers have led to a new approach in teaching collocations through databases of authentic texts available to teachers and learners.

A concordance which is a computer program with a large amount of information in the form of language corpora, shows many examples of a key word or phrase. In other words, it selects some examples of a given word or phrase used in contexts extracted from a corpus, so it gives different kinds of information about the language; i.e., meaning, functions, syntactic and cultural information, idioms, and collocations (Mishan, 2004; Gavioli, 2001). Concordancers can be monolingual, bilingual or multilingual. With bilingual concordancers,

contrastive contexts of language use examples are more easily accessible (Wang, 2001). Sinclair (1991) believes that collocation is one major feature of concordances that cannot be presented sufficiently in a dictionary. This implies effective use of web-based concordances for teaching and learning collocations.

Concerning the importance of student-centered instruction, using concordances as a new approach should be taken into consideration, since they "increase learner participation, enable learners to self-discover language features and become aware of words and spoken language" (Murdoch, 1999).

Concordancing approach is desirable for teaching collocations due to the fact that it provides learners with multiple exposures to new items and collocations. This frequency of exposure is one of the key aspects of language learning. Frequency of exposure that refers to "the number of times an item must be encountered to be learned" (Zahar, Cobb & Spada, 2001) is an essential factor since learners are unlikely to remember the items after seeing them just once (Taiwo, 2004). As Durrant (2008) mentions the most likely reason for the collocation learning problems seems likely to be a lack of sufficient input and frequent exposure.

In addition, it should be mentioned that because of providing context for new items, web-based concordancing approach has one of the most significant factors for learning some aspects of language. It is clear that contextualized instruction or teaching in context is at the heart of collocation instruction. There should be emphasis on teaching in context as a way for teaching not only the words, but also their collocations. Without such a context or through decontextualized instructions, learners cannot gain sufficient knowledge of collocations of words.

However, so far only a few studies have touched upon using this technology-based tool in learning collocations (Hadley, 2002). Based on these discussions, one of the most important factors investigated in this study is the role of web-based concordancing approach in Iranian EFL learners' collocation development.

When it comes to teaching collocations, there seems to exist two conflicting views. Some researchers believe that collocations can be learned incidentally through implicit instruction such as extensive reading (Nation, 2001), while others argue that collocations should be learned explicitly through direct instruction (Bahns & Eldaw, 1993; Nesselhauf, 2003; Seesink, 2007). Explicit processes that involve the construction of explicit knowledge are conscious, deliberative processes, they may either take place when learners are being taught the target items and rules by an instructor, or when they consciously search and try to develop concepts and rules on their own. This kind of instruction refers to the application of learning strategies on the part of the learner (Segler, 2001). On the other hand, implicit instruction refers to a kind of instruction in which learners learn the target items

as a by-product of reading a text for comprehension of the content rather than for learning that items in that text (Hulstijn, Hollander & Greidanus, 1996; Celce-Murcia, 2001, p.289).

Although there are some studies which have indicated that both implicit and explicit teaching of collocations have some positive effects (Hoffman & Lehmann, 2000; Siyanova & Schmitt, 2008; Adolphs & Durow, 2004 as cited in Durant, 2008), they have some negative aspects too. For example, it has been found that in implicit instruction, learners do not learn the new item efficiently, and their learning needs multiple exposures (Hoffman & Lehmann, 2000; Siyanova & Schmitt, 2008; Adolphs & Durow, 2004 as cited in Durant, 2008). On the other hand, one of main limitations of explicit collocation instruction is its limited practical value since most teachers do not devote a specific part of their vocabulary teaching program to teaching collocations so that explicit teaching of collocations is usually inapplicable in the classrooms. Presently, the studies on collocations that have directly compared these two methods are rare. Thus, the present research investigates and compares the effects of these two approaches.

One of the main controversial issues in SLA research is the importance of L1 transfer as a property of second language learning which has been evaluated differently throughout the history of SLA. Oldin (1989) asserts that first language transfer has been documented to occur at all levels of linguistic analysis such as phonology, syntax, lexis, and grammar; although phonological transfer is most common in SLA, lexical and collocational transfer seem to be the major cause of poor proficiency of the learners. In other words, one of the areas of SLA that is strongly influenced by L1 is the transfer of collocational patterns (Gabrys- Biskup, 1992), since EFL learners tend to carry over the collocational patterns of their L1 into L2 settings. Some previous studies have highlighted the role of L1 in EFL learners' production of English collocations and indicated that L2 learners resort to their L1 when they lack English collocational knowledge (Odlin, 1989; Arabski, 2006), while some other researchers have asserted that there is a difference between learning congruent collocations and non-congruent ones (Bahns & Eldaw, 1993; Nesselhauf, 2003); however, empirical evidence for such a claim is rare. Thus, the present study compares collocation learning through implicit and explicit methods as well as through web-based concordancing and traditional approaches while considering both congruent and non-congruent collocations.

Research Questions

The questions this study tries to answer are:

1. Is there any significant difference between web-based concordancing and traditional approaches in enhancing the students' learning of congruent and non congruent collocations?

2. Is there any significant difference between explicit and implicit approaches in enhancing the students' learning of congruent and non- congruent collocations?

1. METHODOLOGY

1.1 Participants

The participants were fifty-four females studying EFL in the Iran Language Institute. They were selected through random sampling and divided into four groups; two groups participated in treatment A, and the two other groups participated in treatment B.

1.2 Materials

In this study to determine learners' level of proficiency, a Michigan English Language Assessment Battery (MELAB) was used. The aim was to select learners with the same proficiency levels.

In addition, for learning collocations in context through web-based concordancing method, concordancing software developed by Oxford University Press, with the database selected from British National Corpus (BNC) was used. This site can be accessed at <http://corpus.byu.edu/bnc/>.

Furthermore, the experimental materials were twenty target words with their collocations. Ten words had similar collocations in the students' native tongue, Farsi, or had congruent collocations, and the other ten words did not have similar collocations in the students' native tongue (non-congruent collocations). The collocations were selected from "Oxford Collocations Dictionary for Students of English".

Moreover, two productive tests, one as a pre-test to check the learners' knowledge of specified collocations, and the other as a post-test to know the effect of collocation teaching methods on the learners' knowledge were developed.

1.3 Procedure

The Michigan English Language assessment Battery (MELAB) was given to the learners to determine their proficiency levels. It was shown that all the participants were advanced English learners. Then learners were divided into four groups, receiving different kinds of collocation instructions. Two groups participated in treatment A which investigated the effect of concordancing and traditional approaches, and two other groups participated in treatment B which examined the implicit and explicit collocation teaching.

Treatment A: For the experimental group, web-based collocation development was used. The method of using the concordancing and the web site were explained to them. They were taught how to type the words in the related fields and then how to see their collocations and even the sentential contexts for them. Then, they searched this site, typed the words, and found their collocations

and contextual examples. Finally, the post-test was given to the learners to know whether they have learned the collocations through this method or not. On the other hand, for the control group, traditional approach was used in the way that collocations were taught to the learners using a list of words along with their collocations and some examples. The sources for teaching collocations in this way were some books such as English Collocations in Use (McCarthy & O'Dell, 2005) and some dictionaries of collocations. Like experimental group, after teaching all the specified collocations, there was a post-test to check the effect of instruction.

Treatment B: In this part, for the experimental group the explicit collocation instruction was used. In this case, learners were aware of teaching and learning collocations. Before the beginning of the treatment, the learners were given some information about collocations, their importance and the way they were going to learn them. Then while learners had direct attention to collocations, the instruction began. However, for the control group, implicit collocation instruction was used. In this method, learners were not aware of learning collocations. They just read some sentences in which collocations were used, while their focus was on understanding the reading contexts rather than collocations. At the end, for both groups, the posttests were used to find the effect of instructions.

1.4 Method of Data Analysis

Statistical tests used to answer the questions of this study were paired-samples and independent t-Tests. The p-value set for the study was .05.

2. RESULT AND DISCUSSION

Table 2
Independent Samples Test

		Levene's Test for Levene's Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper	
Posttest congruent	Equal variances assumed	-149	.702	-512	25	.613	.03167	.06190	-.0958	.15914
	Equal variances not assumed			.518	25	.609	.03167	.06117	-.0944	.15775
Posttest noncongruent	Equal variances assumed	.513	.480	4.36	25	.000	.27500	.06305	.14515	.40485
	Equal variances not assumed			4.30	22	.000	.27500	.06388	.14263	.40737

The results are in line with several studies reporting the use of concordancing for the acquisition of different aspects of a foreign language such as collocations (Kita & Ogata, 1997).

The findings of this part of study are in accord with Sun and Wang's study (2003) that students benefited more from the concordancing method for either difficult or easy

In this part, at first the reliabilities of the tests used in the study are reported. The Cronbach alpha method of estimating the reliabilities was used and the reliability of tests was .81.

In this part, at first, paired sample t-Test was used for each method to know whether web-based concordancing method and traditional method were effective in teaching collocations. The results indicated that there are significant differences ($p=0.00$) between the pre-test and the post-test scores in both methods; therefore, both methods had positive effects and led to learners' collocation development.

Then to answer the first research question that whether there is significant difference between learners' scores through web-based concordancing and traditional methods, considering both congruent and non-congruent collocations, t- Test statistical analyses were performed and as indicated in tables 1 and 2, for learning non-congruent collocations, these two methods were significantly different. In other words, learners in web-based group achieved meaningfully higher scores on non-congruent collocations than learners in traditional method. However, according to the tables, concerning congruent collocations this difference is not significant.

Table 1
Group Statistics

	method	N	Mean	Std. Deviation	Std. Error Mean
Posttest	Web	12	.8583	.15050	.04345
Congruent words	traditional	15	.8267	.16676	.4306
Posttest	Web	12	.8417	.17299	.04994
noncongruent words	traditional	15	.5667	.15430	.03984

collocation patterns since concordancer can empower learners to see concrete collocation examples or to self-induce patterns that facilitated collocation acquisition. Also, the results are consistent with Chan and Liou (2005)'s claim that concordancer has great potential to assist collocation learning since it helps learners notice collocation use in context. Furthermore, these results are

supported by considering the concept of student-centered instruction, in which using concordances increase learner participation, and enable them to self-discover language features (Murdoch, 1999).

In addition, the other way to interpret the findings is to rely on the frequency factor, since learners might take advantage of abundant input that may have facilitated the noticing and assimilation of examples in the two languages for them to note the L1 – L2 non-congruent collocation usage in the two contrastive language examples. This finding is in accord with Durrant (2008)'s argument that the most likely reason for the collocation learning problems seems likely to be lack of sufficient input and frequent exposure.

However, the results showed that for congruent collocations, there is no significant difference between the two methods, since congruent collocations are so easy to be learned by the learners that how to learn them makes no difference to them. This finding conforms fully to Nseelshghf's research that learners have more problems in

non-congruent collocations rather than congruent ones.

In the next part, to answer the second research question dealing with the difference between implicit and explicit collocation instructions, the statistical analyses were performed and the results indicated that while both methods were effective in collocation learning (paired samples t-test was used) ($p=0.00$), the group receiving explicit instruction achieved significantly higher scores than the group receiving implicit instruction (tables 3 and 4).

Table 3
Group Statistics

	method	N	Mean	Std. Deviation	Std. Error Mean
Posttest noncongruent	explicit	12	.8917	.15050	.04345
	implicit	15	.5067	.17512	.04522
Posttest congruent	explicit	12	.9583	.05149	.01486
	implicit	15	.4133	.13020	.03368

Table 5
Independent Samples Test

	Levene's Test for Levene's Variances		t-test for Equality of Means							
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Posttest noncongruent	Equal variances assumed	.125	.726	6.034	25	.000	.38500	.06380	.25359	.51641
	Equal variances not assumed			6.140	24.8	.000	.38500	.06271	.25581	.51419
Posttest congruent	Equal variances assumed	8.96	.006	13.63	25	.000	.54500	.03999	.46264	.62736
	Equal variances not assumed			14.83	19.1	.000	.54500	.03676	.46809	.62191

The findings were consistent with those of Lin (2002), Sun and Wang (2003), and Tseng (2002) that explicit collocation instruction was effective in promoting EFL learners' collocation knowledge. Moreover, the results of this study verify the findings of some researches such as those by Bahns and Eldaw (1993), and Nesselhauf (2003) who indicated that non-congruent collocations cannot be acquired easily through mere exposure and need explicit instruction.

Nesselhauf (2003) suggests that collocations should be explicitly taught, and teachers should call learners' attention to the collocation differences between L1 and L2. Wray (2002, p.183) also believes in explicit collocation teaching because learners may not notice these combinations and co-occurrences of words unless teachers point them out.

Additionally, Lewis (2000) supports the idea of teaching collocations explicitly when he says, "given the present stage of our knowledge of acquisition, it is likely to be helpful to make learners explicitly aware of the lexical nature of language ... this means helping learners develop an understanding of the kinds of chunks found

in the texts they meet" (p. 161). Lewis concludes, "The more aware learners are of the chunks of which any text is made, the more likely that the input they notice will contribute to intake" (p. 163).

Furthermore, the finding of this part of the study are consistent with a number of studies (Grabe & Stoller, 1997; Horst, Cobb & Meara, 1998; Waring & Takaki, 2003) which have looked at L2 vocabulary learning through implicit instruction. What emerges from these studies is that learners do learn vocabulary from implicit instruction but not very much, it is time-consuming (Schmitt & McCarthy, 2002, p.238), and does not necessarily result in long term retention (Waring & Takaki, 2003; Mondria & Boer, 1991). Although their researches emphasize vocabulary learning, they fully conform to the findings of this study on collocations.

CONCLUSION AND IMPLICATIONS

Traditionally, teachers usually presented students with made up examples while teaching collocations. The weakness of such a method is that these examples lack

authenticity and students often have difficulty exploring the underlying patterns from these poor examples. With the development of computer technology, electronically stored corpora have been developed and used widely (Hunston & Francis, 1998). Thus, the present study compared collocation learning through web-based concordancing and traditional approaches. Moreover, this research investigated the effects of two other approaches of collocation teaching that are implicit and explicit methods. In all of these investigations, the effect of first language was considered, too.

The results of this research indicated that non-congruent collocation learning in web-based concordancing approach was significantly higher than traditional approach (this difference was not significant for congruent collocations); besides, learners' performance in the group receiving explicit instruction of collocations was significantly better than those receiving implicit instruction (the difference was significant for both congruent and non-congruent collocations).

These findings can have important implications for second language teachers. Since collocations have an effective role in the performance of EFL learners, conscious knowledge of them can help learners in second language learning. In other words, teachers should concentrate on explicit teaching of collocations and make learners aware of their importance. Moreover, the results of this study can provide teachers with some guidelines to overcome the ongoing challenge of the best method for teaching collocations. This research indicated that using concordancing materials is more helpful than teaching through traditional methods and using source books and dictionaries. Such a method makes learners to have more chances to use up-to-date, authentic, and contextual language. This method enhances learners' sense of exploring, discovery, problem solving and independent language learning.

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