The Effect of Type of Context on EFL Learners' Recognition and Production of Colligations

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Abstract
The present study investigated the effect of type of context (single sentence vs. paragraph) on the learning of English colligations. For this purpose, 23 Iranian EFL learners in three intact classes participated in the study. Two sets of colligations (adjective + preposition and preposition + noun) were selected to be included in the study and the classes were randomly assigned to one control and two experimental groups. The control group (CG) received the colligations in a list, experimental group 1 (EG1) received each colligation in a single sentence, and experimental group 2 (EG2) received the same colligations in paragraphs of four to five lines. Two tests (a multiple-choice and a fill-in-the-blank) were administered to investigate the effect of type of context on the learners' recognition and production of the colligations. A one-way ANOVA and a post hoc Scheffe test were run to analyze the data. The results revealed that the participants in the paragraph group (EG2) significantly outperformed the participants in the list group (CG) in terms of both recognition and production. However, there was no significant difference between the performance of the participants in EG1 and EG2 both on recognition and production tests. Besides, the difference in the performance of the participants in EG1 and CG in terms of recognition and production was not significant, either. It was concluded that contextualization would maximize learning and that a single sentence context would not serve a good definition of context.

Keywords: Collocations, Colligations, Context
1. Introduction

Learning vocabulary is an important factor in fluent second language (L2) speech. Researchers have tried to find effective ways of teaching L2 vocabulary to L2 learners. Different methods like glosses, mnemonic devices, and morphological and syntactic analyses are some examples of the attempts of second language teaching researchers to find practical ways of teaching L2 vocabulary (Min, 2008). From among all the proposed methods, contextualization has received special attention. Webb (2007) points to the fact that different aspects of a word like its semantic relationships, syntagmatic and paradigmatic associations, and even its collocational behavior can be learned through context. The length of context has also been a matter of debate (Engelbert & Theuerkauf, 1999).

Teaching vocabulary does not seem to be limited only to the teaching of the form and meaning of a word. Learners should be made aware of the collocational behavior of the words too, since the mastery of collocations is a sign of L2 fluency (Nesselhauf, 2003). Collocations are words that co-occur in a text (Xiao & McEnery, 2006). As one of the aspects of word knowledge, learners need to possess the knowledge of collocations and colligations, too.

Although contextualized vocabulary learning tasks could be more effective than decontextualized tasks, the facilitative role of context in teaching L2 vocabulary is not that much supported compared to decontextualized tasks (Webb, 2007). In addition, past research has focused on the effectiveness of contextualized tasks comparing contextualized tasks with decontextualized ones on only one aspect of vocabulary knowledge, that of form and meaning. As a result, the effect of context and its length on learning other aspects of word knowledge like colligations has not been touched upon. This study aims to bridge this gap in the related literature by investigating the effect of context vs. non-context on learning colligations by Iranian EFL learners. Since the type of context is believed to have an impact on the learning of words (Engelbert & Theuerkauf, 1999), the present researchers have tried to determine whether the type of context can be a factor in effective learning of colligations. The study, therefore, seeks to answer the following research questions:

1. Is there any difference in the performance of the three groups (EG1, EG2, and CG) on the multiple-choice test as a measure of recognition of colligations?
2. Is there any difference in the performance of the three groups (EG1, EG2, and CG) on the fill-in-the-blank test as a measure of production of colligations?
2. **Review of Literature**

2.1 **Context and Vocabulary Learning**

Due to the importance of L2 vocabulary for successful and fluent L2 communication, different techniques have been devised to facilitate L2 vocabulary acquisition (Oxford & Crookall, 1990). Oxford and Crookall (1990) divided these techniques into three categories, namely decontextualized, semi-contextualized, and fully contextualized tasks. From among decontextualized vocabulary learning tasks, they refer to word lists, flash cards, dictionary use, and so on. These tasks are criticized because they do not provide learners with information for using the word.

Word grouping, visual imagery, keyword, and semantic mapping are among the semi-contextualized tasks used to teach L2 new words to L2 learners. Finally, reading and listening practice are contextualized word learning techniques. Reading newspapers, letters, articles, and books are techniques that can be used to enhance vocabulary knowledge of L2 learners.

It is argued that context can have a positive effect on vocabulary acquisition of L2 learners. Researchers like Engelbert and Theuerkauf (1999) refer to the positive effect of context on vocabulary learning reported in the literature. Corrigan (2007) too claims that seeing vocabulary items in the context provides learners with information about the characteristic features of that word and the linguistic context in which that specific word occurs. Gardner (2007) argues that many words in English have multiple meanings which are context-dependent. When one tries to teach those words isolated from context, they lose their meanings and become vague. However, Oxford and Crookall (1990) state that the learners’ ability to infer word meaning from the context does not necessarily mean that they know the word completely.

2.2 **Collocations and Colligations**

In addition to the meaning of a word, learners need to have the knowledge of other aspects of vocabulary like collocations. The term collocation is derived from the Latin verb “collocare”, which means “to arrange” (Martynska, 2004). Collocation is defined in many ways by different scholars and there is no clear-cut definition for this term. The term is usually defined as the tendency of words to co-occur with one another.

Hardi (2008) defines collocations as words that occur together in a text. He believes that this type of co-occurrence should be frequent enough to consider a pair of words as a collocational phrase. Similarly, Xiao and McEnery (2006) define collocations as words
that co-occur in a text. What is common in all these definitions is the element of co-occurrence.

Siepmann (2006) introduces four collocational relationships:
- **Colligations**: the grammatical preferences of individual words
- **Collocations between lexemes or phrasemes**
- **Collocations between lexemes and semantic-pragmatic features**
- **Collocations between semantic and pragmatic features**.

Collocations are divided into two categories, namely lexical and grammatical. Marco (1999) argues that lexical and grammatical collocations can be called *collocations* and *colligations*, respectively. In fact colligations are the same as grammatical collocations. Based on Marco’s (1999) categorization, colligations are synonymous with grammatical collocations in the present study.

The term colligation was first coined by Firth, and later defined by Hoey as the grammatical company of a word (Siepmann, 2006). Although colligation was initially defined as the co-occurrence of the grammatical categories, later some scholars adopted the term to refer to the co-occurrence of lexical and grammatical categories, as well (Gabrielatos, 2007). Benson, Benson, and Ilson (1997) define grammatical collocations (colligations) as phrases containing a dominant word category and a preposition or grammatical structure. This is where lexical collocations do not contain grammatical structures or prepositions.

Focusing on the colligational patterns that words might have, Yusuf (2009) conducted a corpus-based study to find out the colligational patterns of two prepositions *for* and *to*. For her, colligations were the syntactic patterns a word could have. She elaborated on the choice of *for* and *to* and concluded that the reason for choosing them was their prepositional function. The corpus analysis revealed the common pattern for *to* as noun/verb + to + noun/noun-phrase. The pattern found for *for* was noun + for + noun/noun-phrase.

Obviously, collocations and colligations have become an important area of research because little by little researchers came to understand that focusing learners’ attention on single words in a sentence would not help them improve both their fluency and accuracy. As a result, they started focusing on teaching word combinations or (words in combination) rather than teaching isolated words.
However, L2 learners have problems in producing collocations (both lexical and grammatical) since not all words go together, and in addition, the words that go together are subject to the rules of language; one reason for this is the lack of collocational competence, according to Martynska (2004). She argues that since learners do not possess collocational competence, they cannot produce texts which are lexically and grammatically correct. She concludes that helping learners acquire collocations and the way they co-occur will make their production more natural and native-like.

Colligational patterns, as a part of word knowledge, are needed to be learned by L2 learners. Knowing the type of prepositions that can occur with a specific word (noun/adjective/verb) will lead to more fluent and accurate and native-like production. Nevertheless, to the best of the researchers’ knowledge, there are no studies in the literature mainly focusing on the teaching of colligational patterns to EFL learners. The present study, therefore, is intended to compare the differential effects of contextualized and decontextualized tasks on learning colligations as measured by a recognition as well as a production test.

3. Method

3.1 Participants

A total of 20 low-intermediate EFL students with an average age of 20 participated in this study. The participants, all females, were members of three intact classes at a private language school in Tehran, Iran. The classes were randomly assigned to one control and two experimental groups (CG, EG1, and EG2, respectively). All the three groups were taught by the same teacher.

3.2 Materials and Instruments

A list of 35 colligational combinations for the control group, the same combinations in single sentences for EG1 and in paragraphs for EG2 were the materials used in the study. The colligations were selected from English Collocations in Use, LONGMAN Dictionary of Contemporary English, and OXFORD Advanced Learner’s Dictionary. The selected colligations were mainly adjective+ preposition or preposition+noun combinations. A sample of the colligational combinations used in the study appears in Appendix A.

At the end of the treatment, a posttest including both recognition and production items was administered. The recognition section was a multiple-choice test consisting of ten items and the production section was a fill-in-the-blank test consisting of ten items.
3.3 Procedure

The participants in all the three classes were supposed to be homogeneous inasmuch as they had undergone a standardized placement test. After the random assignment of the three intact classes to one control group and two experimental groups, the second researcher provided the participants in the control group with a list of colligations. For this group the colligations were listed without providing any illustrative examples or contexts. They only saw the colligations in isolation.

The second group (EG1) received the same colligations in single sentences. They only saw each colligation in a single simple sentence. The third group (EG2) received each of those colligations in a short paragraph. To ensure that the participants had no prior familiarity with the target colligations, the second researcher sought the advice of the teacher who taught the three classes.

The second researcher provided the participants in all the three groups with the materials in one session. The participants were asked to read the given materials carefully. In the session that followed (three days later), the recognition and production tests were administered.

The participants received one point for each correct answer, and lost one point for the wrong answers. The students were given ten minutes to answer the two tests (five minutes for each). They took the recognition test first and then took the production test.

The rationale for inclusion of both tests was that recognition of the colligational patterns would not necessarily ensure that learners could produce them. As a result, these two tests were supposed to reveal the effect of type of context on both recognition and production of the given colligations.

3.4 Data Analysis

Two research questions were formed at the beginning of the study. The first research question compared the performance of the three groups (CG, EG1, and EG2) on the multiple-choice test as a measure of recognition of colligations. To compare the performance of the participants across the three groups, a one-way ANOVA was used. Moreover, to pinpoint any significant difference in the performance of the groups, a post hoc Scheffe test was applied.

The same procedure was followed for the fill-in-the-blank test as a measure of production. A one-way ANOVA was used to compare the performance of the three groups on the production test, which was followed by a post hoc Scheffe test to find out any significant differences across the three groups.
4. Results

Table 1 displays the descriptive statistics for the three groups on the recognition test.

Table 1. Descriptive statistics for the recognition test

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG</td>
<td>8</td>
<td>5.13</td>
<td>1.95</td>
</tr>
<tr>
<td>EG1</td>
<td>6</td>
<td>7.00</td>
<td>1.67</td>
</tr>
<tr>
<td>EG2</td>
<td>6</td>
<td>8.5</td>
<td>1.87</td>
</tr>
</tbody>
</table>

A one-way ANOVA was used to compare the mean scores of the three groups on the multiple-choice test as a measure of recognition of colligations. As observed in Table 2, there is a statistically significant difference between the three groups, $F (2, 17) = 5.79$, $p= 0.012$.

Table 2. One-way ANOVA for the recognition test

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>2</td>
<td>39.82</td>
<td>19.91</td>
<td>5.79</td>
<td>.012</td>
</tr>
<tr>
<td>Within groups</td>
<td>17</td>
<td>58.37</td>
<td>3.43</td>
<td></td>
<td>.05</td>
</tr>
</tbody>
</table>

To trace the exact place of the difference among the three groups, a post-hoc Scheffe test was employed. The results are illustrated below in Table 3.

Table 3. Scheffe test of differences between the three groups on the recognition test

<table>
<thead>
<tr>
<th>Between group comparisons</th>
<th>Mean difference</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG</td>
<td>EG1</td>
<td>1.87</td>
</tr>
<tr>
<td>CG</td>
<td>EG2</td>
<td>3.37*</td>
</tr>
<tr>
<td>EG1</td>
<td>EG2</td>
<td>1.50</td>
</tr>
</tbody>
</table>

$p< 0.05$

The results demonstrate that the learners in the paragraph group (EG2) outperformed their counterparts in the list group (CG). This suggests that providing a
longer context would facilitate recognition of colligations. However, there was no significant difference between the two experimental conditions, i.e. paragraph versus single sentence.

The descriptive statistics for the performance of the three groups on the production test are displayed in Table 4.

Table 4. Descriptive Statistics for the production test

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG</td>
<td>8</td>
<td>4.12</td>
<td>1.55</td>
</tr>
<tr>
<td>EG1</td>
<td>6</td>
<td>6.33</td>
<td>1.96</td>
</tr>
<tr>
<td>EG2</td>
<td>6</td>
<td>7.50</td>
<td>2.07</td>
</tr>
</tbody>
</table>

The results of the one-way ANOVA (Table 5) showed a statistically significant difference in the performance of the three groups on the production test, $F (2, 17) = 6.11$, $p= 0.010$.

Table 5. One-way ANOVA for the production test

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>2</td>
<td>41.49</td>
<td>20.74</td>
<td>6.11</td>
<td>.010</td>
</tr>
<tr>
<td>Within groups</td>
<td>17</td>
<td>57.70</td>
<td>3.39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$p< 0.05$

Furthermore, a post-hoc Scheffe test was used to pinpoint the exact place of the difference across the three groups in the production test.

Table 6. Scheffe test of differences between the three groups on the production test

<table>
<thead>
<tr>
<th>Between group comparisons</th>
<th>Mean difference</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG</td>
<td>EG1</td>
<td>2.21</td>
</tr>
<tr>
<td>CG</td>
<td>EG2</td>
<td>3.38*</td>
</tr>
<tr>
<td>EG1</td>
<td>EG2</td>
<td>1.17</td>
</tr>
</tbody>
</table>

$p< 0.05$
Based on the results displayed in Table 6, there was a significant difference between the performances of the paragraph and list groups (EG2 vs. CG). The paragraph group performed significantly better than the list group on the production test. Consequently, it can be concluded that participants who saw the colligations in an extended context (a paragraph) were more successful in learning them than those who saw them out of context. Moreover, again there was no significant difference between the two experimental conditions, i.e. paragraph versus single sentence.

5. Discussion and Conclusion

As observed in the results section, there was a significant difference in the performance of the three groups on the multiple-choice test of recognition. It seems that presenting colligations in paragraphs (sample text) is more effective in subsequent recognition of colligations by the learners compared to the list method. The mean score of the learners in the paragraph group was higher than the sentence group, but the observed difference was not significant enough to show the superiority of paragraphs over sentences in terms of recognition of colligations. This may be due to the way the terms sentence and paragraph are defined. The sentence in this study was defined as a single short statement, and the paragraph as a combination of four to five sentences. Thus, the sentence, defined as a single short statement, seems to be insufficient to enable learners to relate a preposition to an accompanying noun or adjective.

The participants in the sentence group (EG1) might not have been able to understand that a specific preposition and the adjective following it would form a colligation and that these two always go together. Likewise, the participants in the control group seem not to have been able to associate the adjectives to the prepositions following them, or the nouns to the prepositions preceding them. Therefore, the lack of context seems to have affected the participants’ learning.

It is also possible to assume that the paragraphs were not long enough. The results might have changed if the paragraphs had been longer. However, the paragraph method proved to be more effective than the list method, i.e. providing the learners with long lists of isolated colligations, although there seemed to be no significant difference between sentence and paragraph methods.

The analysis of the performance of the learners on the fill-in-the-blank test, as a measure of production of the colligations, revealed the same results. In this test, the learners who received the colligations in the paragraphs significantly outperformed those
who received them in the list form, i.e. in isolation and out of context. The mean score for the production of the colligations for the paragraph group is 7.5 and for the sentence group it is 6.33. Although there is a difference in the performance of the two groups, it is not statistically significant to help one conclude that longer contexts would eventually lead to better production of colligations. Nevertheless, the significant difference in the production of the paragraph and list groups (EG2 vs. CG) manifested the crucial role that context could play in enhancing the production of colligations.

Another point worth consideration is that the mean scores of the production for the three groups were lower than the mean scores of the recognition of colligations. This means that it is cognitively more challenging for the learners to produce colligations than to recognize them.

The findings are in line with those studies in the literature which argue for the presentation of vocabulary items in the context. Webb (2007), for example, argued that contextualization would provide learners with sufficient information on all aspects of the word knowledge not merely its form and meaning.

What seems to be important is the fact that this study provided evidence and support in favor of contextualizing colligations. It seemed to be easier for the learners to associate and link prepositions to related nouns and adjectives when they occurred in a context rather than when they occurred out of context in a list.

This study revealed the superiority of contextualized learning tasks over decontextualized activities in learning English colligations. The contextualized tasks in the form of paragraphs were superior compared to the non-contextualized tasks in the form of list of colligations.

Obviously, when learners are provided with a context, they can make use of contextual clues and infer the meaning of unknown words better than when the words are presented in isolation. This study showed that when colligations were contextualized, the learners managed to learn and remember them more efficiently. Contextualization provides learners with enough information about different aspects of a word, while decontextualized presentation of words only familiarizes learners with the physical aspect of them. In fact, it provides them with no contextual clues to make sense of all aspects of a word (Webb, 2007).

An interesting point which needs further exploration is the effect of the length of context. The findings of this study revealed that there was no significant difference between learning colligations in lists and learning them in single sentences. This suggests
that a single sentence is not long enough to establish sufficient contextual information for learning colligations. However, on the other hand, there was no significant difference between learning colligations in single sentences versus paragraphs. This is rather surprising as one would expect a paragraph to be a more effective context than a single sentence. These findings provide further evidence for Engelbert and Theuerkauf’s (1999) claim that the issue of the length of context requires more investigation.

In conclusion, it should be noted that the findings of this study, due to the very limited number of the participants in each group, are not generalizable at all. The findings, however, call our attention to the important role of context in learning English colligations and discourage learners from list learning. One thing that remains unsolved is how long is a long enough context.
References
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Asal Bakhshian Nik holds an MA degree in TEFL from Allameh Tabataba’i University in Tehran, Iran. She is interested in exploring the role of collocations in learning English as a foreign language.

Appendix A
A sample of the colligations used in the study

armed with  surprised at
important to  responsible for
interested in  necessary for