Effect of Corpus-based Activities on Learning Verb–Noun Collocations in Saudi EFL Classes

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Received on: 27-7-2021 Accepted on: 18-10-2021

Abstract

This study investigates the effect of corpus-based activities on learning verb–noun collocations in Saudi EFL classes. The differences between those who were instructed through the corpus-based method and those who were taught using the traditional method were analysed using pre- and post-collocation tests provided to 62 female university students. Fifteen verb–noun collocations were used. The results of the study show a significant positive change in the learning level of the experimental group that was given corpus-based activities. There were significant differences between the experimental and the control group; the latter group was only exposed to coursebooks and dictionaries. These findings will help facilitate the verb–noun collocations learning process for learners of English as a foreign language. They will also benefit language teachers and curriculum designers in focusing on modifying teaching methods.

Keywords: Corpus-Based Materials, Verb–Noun Collocations, Corpus Linguistics, EFL Classes, Saudi.

1. Introduction

Corpus refers to a compilation of oral and written data that are saved on computers and are examined quantitatively or qualitatively using analytical software (O’keeffe et al. 2007). Elsherbini and Ali (2017) state that there are two ways to use the corpus in a classroom. Direct use of concordance is the individual access of students to the corpus, while in the indirect use of concordance, teachers access the concordance to use them as examples for learners.

Chan and Liou (2005) argue that learners of English as a foreign language (EFL) are weak in collocation use because collocations are neglected in English teaching. Hill (1999) emphasises that one of the reasons behind EFL learners’ difficulties in learning English collocations is their lack of collocational competence. Flowerdew (1999) further states that the difficulties in learning English prepositions arise from learners trying to grasp the ‘meaning’ of the prepositions and their use separately without considering their collocational properties.

Harmon et al. (2009) emphasise that vocabulary growth is an important aspect of language development. Nunan (1991) also stresses that the acquisition of adequate vocabulary is fundamental for learners to use language productively and produce intelligible communication. Meara (1980) similarly argues that vocabulary is the single primary source of difficulty for second language learners.

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Jafarpour (2006) show that the reason for flawed utterances such as ‘to take fish’ and ‘to be bad in something’ is not because of poor lexical or grammatical knowledge, but learners’ lack of knowledge of collocations. Therefore, learning collocations is fundamental for EFL learners to reach native speakers’ English competence.

There is scarce research investigating the effect of corpus-based activities on collocation learning in Saudi EFL context. Thus, this paper aims to investigate the effect of corpus-based activities on verb–noun collocation learning in Saudi EFL classes. Based on the literature and the research gap identified, this study aims to answer the following questions:

- What is the effect of using corpus-based activities on verb–noun collocation learning in Saudi EFL classes?
- What is the difference between the verb–noun collocation competence of students instructed using corpus-based activities versus those subject to traditional teaching methods?

The findings of this research will benefit linguists, learners, researchers, curriculum designers, and language instructors. The findings will provide further techniques to increase learners’ collocational competence. This will lead to better performance in language learning and increase learners’ motivation in EFL classrooms.

2. Literature review

2.1 Collocations

Part of being a fluent foreign language speaker is to know its collocations (Putra and Suhardijanto 2019). Collocation as a term was introduced by Firth in 1957; who defined it as word combinations that are related to each other, that is, ‘statements of habitual or customary places of that word in collocational order but not in any other contextual order and emphatically not in any grammatical order’ (Firth 1968, 181). Later, Carter (1992) describes them as the rapid occurrence of a group of words in a language.

Collocations are formed in a certain domain when several words co-occur with one word or more (Nesselhauf 2003). Collocations come naturally to native speakers, but not as easily for learners of a foreign language, and this causes frustration (Wray 2002; Wang and Good 2007). Difficulties faced by EFL learners in learning English collocations are not limited to Saudi EFL learners; other EFL learners face the same difficulties (Koosha and Zarei 2003). Another issue EFL learners face is the lexical transfer from their first language in their use of collocations (Biskup 1992). The less learners know about collocations, the more mistakes they will make when attempting to explain themselves (Hill 1999).

In theory, collocations are divided into different categories. Benson et al. (1986) suggest two categories: lexical and grammatical. The former concerns content words, but not prepositions or infinitives, while the latter concerns adjectives, nouns, and verbs that come with an infinitive or preposition. Huang (2001) presents a more focused categorisation of lexical collocations: free combination, restricted collocations, figurative idioms, and pure idioms. Lewis et al. (1997) put forth the following patterns of lexical collocations: 1–adjective + noun (thick fog), 2–verb + noun (take breaks), 3–noun + noun (dress code), 4–verb + adverb (recommend highly), 5–adverb + adjective (sound asleep), 6–
adjective + preposition (*angry at*), and pattern number 7–phrasal verb (*to come across*). This study examines the verb + noun collocations.

2.2 Related collocations studies

Mahmoud (2005) examined the lexical errors in 42 essays by Arab EFL learners who were university students majoring in English. Four hundred and twenty collocations were identified in these essays, of which 64% were incorrect. Mahmoud surmises that about 61% of these were due to the negative transfer from the participants’ native Arabic. Further, 80% of the collocations used were lexical and not grammatical, and that ‘The fact that post-intermediate and advanced students of EFL have a relatively large stock of vocabulary might have motivated interlingual transfer in the belief that it would be easy to find the EFL equivalents of the Arabic lexical items’ (Mahmoud 2005, 117).

Verb–noun collocations are considered one of the key aspects to gain communicative competence. Brashi (2009) investigated English collocations of verb + noun among EFL learners. His participants were 20 students from the English language department at Umm Al-Qura University in Makkah. They were in their final study year (year four). The researcher used fill in the blanks and multiple-choice tests of English collocations. In this study, the participants did not have enough knowledge of English collocations. They also could not differentiate between English and Arabic collocations. Further, the receptive level was better than the productive level, and thus the language produced differed from that of native users.

More interestingly, Wang and Good (2007) explored the repetition of verb + noun collocations in EFL textbooks. Three popular English textbooks for Taiwanese senior high schools were analysed for verb and noun collocations using a computer programme. On average, these collocations were repeated three to four times. In the series of textbooks, 80% of collocations were mentioned only one to five times. Wang and Good thus conclude that these textbooks should be revised if collocation acquisition is a goal. They also suggest that EFL teachers should expose learners to collocations by giving them explicit instructions.

Meechai and Chumworathayee (2015) studied EFL university students in Thailand in order to determine how verb-noun collocations are used by students in regular and English programmes. They also examined the collocational differences between these two groups and the source of errors. Half of the 60 participants were in their third and fourth year in the regular programme. The other half were third and fourth-year students majoring in marketing and were a part of the English programme. Using a translation and gap-filling collocation test, the authors found that participants studying the marketing English programme scored higher. They tended to use a variation of different verb + noun collocations accurately, unlike the students in the regular programme, who lacked collocation knowledge.

Assaf, Al-Jamal, and Rababeh (2020) investigated the effect of an electronic collocation-based instructional application on enhancing Jordanian EFL students’ reading comprehension. 50 male students participated in the study. They were 15 years old. The participants were divided randomly into two groups: experimental and control group. The latter were instructed using the traditional method without
any focus on collocations. The experimental group were instructed through the use of “Quizlet” mobile application. A pre and post reading comprehension tests were administered to both groups. The results confirmed that the experimental group did better than the control group in literal and inferential reading comprehension test.

2.3 Related corpus-based studies

Chan and Liou (2005) conducted a study on 32 college EFL students to examine the effects of using web-based concordancing on verb–noun collocations using a pre- and post-test. The findings highlight significant collocation development after online practice; however, it reverted after two-and-a-half months. Their performance in the verb + noun lexical collocations was superior compared with their entry level. Students were also able to remember and develop collocations with delexicalised verbs. Thus, Chan and Liou assert that this method is effective for collocation learning. They also point out that students with low English proficiency benefitted more from collocation instruction.

Further, Koosha and Jafarpour (2006) explored a study to investigate the efficiency of concordance tools introduced by data-driven learning of preposition collocation. They also investigated the relationship between students’ English proficiency levels and knowledge of preposition collocations, as well as whether learners’ first language has an effect on their knowledge of the collocation of prepositions. The 200 EFL students who participated in this study were enrolled at three different universities in Shahrekord and the researchers used the Michigan English Language Proficiency Test to sort the participants based on their proficiency. They were then divided into two groups: the control group (conventional learning) and the experimental group (data-driven learning). The first group received conventional treatment on collocational patterns of prepositions, while the second one underwent data-driven learning instruction using concordance lines. Both groups were put through a pre-and post-test. Their findings show that, first, data-driven learning is effective in preposition collocation teaching and learning; second, learners’ performance of preposition collocations showed a positive relationship with learners’ English proficiency level; and third, learners’ second-language production was affected by their first-language collocational patterns.

Ucar and Yükselir (2015) also studied the effect of corpus-based activities on verb–noun collocations in EFL classes by examining the difference between receiving corpus-based activities and the traditional teaching method regarding verb–noun collocation competence. The authors targeted students of a preparatory class at the Foreign Languages School at OKAU in Turkey. Two groups of participants were included, and each was given a pre-test: experimental and control. The results revealed no major differences. Corpus-based materials on verb–noun collocations were administered to the experimental group, while a traditional method was applied for the control group. Findings of their study showed that the differences in outcomes between the two groups were statistically significant. The experimental group showed significant results after being taught using corpus-based activities.

Elsherbini and Ali (2017) examined the effect of corpus-based activities on EFL university students’ grammar and vocabulary, and students’ attitudes towards it, using a mixed-methods analysis. The participants included 104 freshers studying a business English course at SAMS located in Egypt.
Participants were divided into 54 students for the experimental group and 50 for the control group. The experimental group went through 11 weeks of training and teaching of corpus-based activities, while the other group received lessons from course books. The results reveal that the post-test had better scores than the pre-test. Further, the results of the questionnaire and interviews showed that attitudes towards grammar and vocabulary corpus-based activities learning were positive.

3. Methodology

3.1 Participants

Sixty-two female students participated in the study, with ages ranging from 18 to 20 years. They were enrolled at Princess Nourah Bint Abdulrahman University in the Applied Linguistics Department. They represented beginner-to-intermediate English proficiency levels. Only female students were investigated since the Saudi educational system separates male and female students. Thirty-one students participated in the experimental group, and thirty-one in the control group.

An approval was granted for this research by the PNU institutional review board. Participation was voluntary and anonymised, as stated in the information sheet presented to the participants. The researcher also emphasised this information orally prior to data collection.

3.2 Instrument

The collocations used in this study were taken from the ‘New headway academic skills—level 1: reading, writing, and study skills’ textbook. Fifteen verb–noun collocations were selected (Table 1). Pre- and post-collocation tests were performed. The researcher designed the test used in the pre- and post-tests. The pre-test was administered prior to treatment initiation. It consisted of 15 multiple-choice statements on the same selected noun–verb collocations to be introduced later. The post-test was given one week following the treatment. The experimental group was taught verb–noun collocations through corpus-based activities. These activities were obtained from the concordance lines in the corpus of contemporary American English. The control group was taught these verb–noun collocations through traditional teaching methods involving the use of dictionaries and textbook activities.

Table 1: Selected verb-noun collocations

<table>
<thead>
<tr>
<th>Have an accident</th>
<th>Tell me</th>
<th>Catch the train</th>
<th>Lose weight</th>
<th>Get a taxi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send an email</td>
<td>Make a study plan</td>
<td>Receive telephone calls</td>
<td>Take breaks</td>
<td>Make notes</td>
</tr>
<tr>
<td>Face the front</td>
<td>Train horses</td>
<td>Scan an article</td>
<td>Spend money</td>
<td>Have a meeting</td>
</tr>
</tbody>
</table>

3.3 Pilot Study

The pilot study was conducted with 17 students majoring in Applied Linguistics to confirm the feasibility of the study. The exercises and recognition tests for collocation competence were administered to these students. The validity of the study was confirmed by two language specialists. They completed the test, checked the exercises, and provided feedback. The findings indicated that the instrument and
activities used were clear and that they were easy to comprehend, and this confirmed the study's feasibility and reliability.

3.4 Procedure

The experimental and control group students were English students at Princess Nourah Bint Abdulrahman University. 31 students participated in each group. They were level three students (the first two levels are foundation). They were chosen randomly from the same academic level to ensure that both groups represent the same English proficiency level. They were then arbitrarily split into experimental and control groups. All were taught by the researcher. The collocation pre-test was given to both groups at the first meeting. For the experimental group, the 15 target collocations from the ‘New headway academic skills - level 1: reading, writing, and study skills’ textbook were taught using corpus-based activities and concordance lines taken from COCA. The second group was taught the same 15 verb–noun collocations through the course textbook and dictionaries. Two three-hour lectures were used for the experimental and control groups. These specific hours were chosen due to the limited number and level of the verb-noun collocations selected. The post-test was held two weeks after the last lecture for both groups.

4. Data analysis

This section presents the data of the experimental and control groups as well as the findings of the pre- and post-tests. Additionally, the differences between the study groups are reported.

4.1 The experimental and control groups’ pre-test scores comparison

The following table presents the findings of the pre-test for both the experimental group and the control group using the independent sample t-test analysis. This test determined the dissimilarities between the two groups of how aware participants were at the beginning of the research on collocations.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test control</td>
<td>9.32</td>
<td>2.833</td>
<td></td>
<td></td>
<td></td>
<td>-.139</td>
<td>.697</td>
<td>-1.492 - 1.298</td>
</tr>
<tr>
<td>group</td>
<td></td>
<td></td>
<td>.59</td>
<td></td>
<td>.890</td>
<td>-.097</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>9.42</td>
<td>2.655</td>
<td></td>
<td></td>
<td></td>
<td>-.139</td>
<td>.697</td>
<td>-1.492 - 1.298</td>
</tr>
<tr>
<td>experimental</td>
<td></td>
<td></td>
<td>.59</td>
<td></td>
<td>.890</td>
<td>-.097</td>
<td></td>
<td></td>
</tr>
<tr>
<td>group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.139</td>
<td>.697</td>
<td>-1.492 - 1.298</td>
</tr>
</tbody>
</table>

Table 2 reports the results of both the control and experimental groups. It shows no significant results; that is, there were no differences between the two groups in the pre-test administered at the beginning (t (59) = -.139, p=.890). The collocation competence of the participants in both groups was equal.
4.2 Pre and post-test scores comparison of the experimental group

Table 3 reports the results of the pre-test and post-test scores for both the control group and the experimental group through the use of a paired-sample t-test to demonstrate the effect of corpus-based activities.

**Table 3:** Experimental group’s paired sample t-test analysis for the pre and post-test results

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>9.42</td>
<td>31</td>
<td>2.66</td>
<td>-7.874</td>
<td>30</td>
<td>.000</td>
</tr>
<tr>
<td>Post-test</td>
<td>13.42</td>
<td>31</td>
<td>1.03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant differences were found in the scores of the collocation test between the pre-test (M=9.42, SD=2.66) and post-test (M=13.42, SD=1.03) (t (30) = -7.874, p<.005). Thus, corpus-based activities seem to have a positive effect on the learning process of noun-verb collocations.

4.3 Pre and post-test scores comparison of the control group

Table 4 reports the results of the paired sample t-test analysis of the control group’s pre-test and post-test.

**Table 4:** Control group’s paired sample t-test analysis of the pre and post-test results

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>9.32</td>
<td>31</td>
<td>2.83</td>
<td>-1.592</td>
<td>30</td>
<td>.122</td>
</tr>
<tr>
<td>Post-test</td>
<td>10.39</td>
<td>31</td>
<td>2.76</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No significant results were found. To elaborate, the outcome of the pre and post-test of the control group show no statistically substantial differences between the pre-test (M=9.32, SD=2.83) and post-test (M=10.39, SD=2.86) in relation to verb–noun collocation learning (t (30) =-1.592, p=.122). These findings indicate that conventional learning does not have a momentous effect on the learning of verb–noun collocations. The overall mean scores for this group’s pre-test increased in the post-test, but it was not significant, as mentioned previously.

4.4 Comparison of post-test scores of both groups

A comparison between the experimental group and the control group scores was made using the independent sample t-test to determine if there were significant differences between the two groups after the type of activities received.

**Table 5:** Independent sample t-test analysis of the post-test scores of both groups

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test control group</td>
<td>9.25</td>
<td>3.77</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-test experimental group</td>
<td>13.42</td>
<td>1.03</td>
<td>5.2</td>
<td>59</td>
<td>.000</td>
<td>-4.169</td>
<td>.797</td>
<td>-5.791, 2.54</td>
</tr>
</tbody>
</table>


Table 5 shows that the collocations given by both groups in the post-test had significant statistical differences. The control group post-test was \( (M=9.25, \ SD=3.77) \), while the experimental group was \( (M=13.42, \ SD=1.03) \) \( (t \ (59) = -5.230, \ p<0.05) \). Thus, participants who received instructions through corpus-based activities performed better than those who did not receive such instructions in the collocation test.

5. Discussion

In this study, the first research question aimed to determine the effect of using corpus-based activities on verb–noun collocation learning in Saudi EFL classes. The results show that, after EFL learners received corpus-based instructions for noun–verb collocations, learners’ performance improved, as shown by the statistical analysis. These findings follow the conclusions of Chan and Liou (2005) and Ashouri et al. (2014), who noted the ability of corpus-based instructions to allow students to properly recognise, use, and learn collocations. The results also confirm the positive impact of the use of corpus-based activities on EFL learners’ collocation competence. They also represent further direction in research for the results of Brashi (2009) where he concluded that participants did better in the receptive skills (reading and listening) than in the productive skills (writing and speaking). So, the findings of this study provide further tools and strategies to improve collocations’ teaching and facilitate their learning. After six hours of corpus-based activities, the post-test results of the experimental group in this study outperformed their pre-test scores. Other researchers have also stressed on the benefits of corpus-based learning and teaching strategies for foreign language learners (Biber and Reppen 2002, Hunston 2002).

The second research question investigated the difference between the verb–noun collocation competence of the students who were instructed through corpus-based activities versus the traditional teaching method. The results confirm that corpus-based instruction enhanced Saudi EFL learners performance in the post-collocation test. The control group, which received traditional instructions, showed lower performance in verb–noun collocations. This finding also aligns with the conclusions of researchers who confirm the significant role of corpus-based instruction in learning collocations (Ucar and Yükselir 2015; Jafarpour et al. 2013; Binkai 2012; Chan and Liou 2005; Koosha and Jafarpour 2006). Therefore, Hsu (2002) emphasize that EFL learners should be taught collocations overtly to assist their second language learning. El-Dakhs (2015) asserts that EFL learners must be trained to utilize online corpora. She lists a number of activities to be used in learning classrooms to improve learners’ receptive and productive knowledge like: gap filling with the words provided in a box, crossing odd words, highlighting collocations which occur repeatedly, bingo, matching, multiple choice, correcting underlined collocations errors, focus paraphrase, grid completion, gap filling with the first letter provided as a clue, and finally judging the acceptability of certain word combinations.
6. Conclusion

The findings of the present study confirm the significant effect of corpus-based activities on verb-noun collocation learning among Saudi learners of EFL. It also revealed clear differences between those who were instructed using corpus-based activities and those who were taught using the traditional method.

The findings of the current study should help EFL teachers, learners, and curriculum designers in providing a more efficient way to increase the knowledge, and thus use, of verb–noun collocations. It should also help language instructors understand the importance of enhancing teaching strategies using up-to-date methods. This way, students can practice and learn language in everyday contexts.

However, one of the limitations of this study is the limited number of participants. Participation was voluntary and limited to a small number of subjects, so findings cannot be generalized to all Saudi EFL learners. Another limitation was time; participants were subject to only six hours of practice owing to the difficulties faced in finding time to meet with them. Data were collected during a busy time of the semester, so the researcher faced difficulties in finding a suitable time to meet with them. Additionally, only female participants were studied owing to cultural restrictions.

Further research should increase the quantity of verb+noun collocations as well as the duration of experimental hours. Other English proficiency levels should also be investigated to compare the results. Future studies should be expanded to both genders.

Acknowledgement

This research was funded by the Deanship of Scientific Research at Princess Nourah Bint Abdulrahman University through the Fast Track Research Funding Program.
دور الأنشطة المستمدة من مجموعة النصوص في تعلم المتلازمات اللغوية للفعل والاسم في فصول تعلم اللغة الإنجليزية كلينة أجنبية في المملكة العربية السعودية

ألفان المقرن
قسم اللغويات التطبيقية، كلية اللغات، جامعة الأميرة نورة بنت عبدالرحمن، المملكة العربية السعودية

الملخص
تهدف هذه الدراسة إلى تحقق من تأثير الأنشطة المستمدة من مجموعة النصوص (المودان) على تعلم المتلازمات اللغوية للفعل والاسم في فصول "اللغة الإنجليزية كلينة أجنبية" في المملكة العربية السعودية، تم تحليل الفروق بين أولئك الذين تم تعليمهم من خلال الأسلوب القائم على المدونة، وأولئك الذين تم تدريسهم باستخدام الطريقة التقليدية بواسطة اختبارات ما قبل التجميع وعده. شارك في الدراسة اثنان وستون طالبًا جامعيًا. تم استخدام خمس عشرة متلازمة لفظية بين الفعل والاسم، ولوحظ تغيير إيجابي كبير في مستوى التعلم للمجموعة التجريبية التي أعطت الأنشطة المستمدة من المدونات. وتوجد فروق ذات دلالات إحصائية بين المجموعة التجريبية والضابطة. وتم استخدام الكتب الدراسية والقوابس فقط للمجموعة الضابطة. تساهم هذه النتائج في تسهيل عملية تعلم المتلازمات اللغوية بين الفعل والاسم لمتعلمي اللغة الإنجليزية كلينة أجنبية، كما أنها تفيد معلمي اللغة ومصممي المناهج في التركيز على تعديل طرق التدريس وتطويرها.

الكلمات المفتاحية: المواد المستمدة من المتلازمات، متلازمات الفعل والاسم، لغويات المدونة، فصول اللغة الإنجليزية كلينة أجنبية، السعودية.
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