A COMPARATIVE STUDY ON THE EFFECTS OF NEGATIVE EVIDENCE AND ENRICHED INPUT ON LEARNING OF VERB-NOUN COLLOCATIONS

Hatice Okyar¹, Gonca Yangın Ekşi²

¹Necmettin Erbakan University, School of Foreign Languages, Konya, Turkey
²Gazi University, English Language Teaching Department, Ankara, Turkey

Abstract:
This study compared the effectiveness of negative evidence and enriched input on learning the verb-noun collocations. There were 52 English as Foreign Language (EFL) learners in this research study and they were randomly assigned to the negative evidence or enriched input groups. While the negative evidence group (n=27) was provided with instruction about what was not acceptable for verb-noun collocation structure, the enriched input group (n=25) was exposed to the target verb-noun collocations many times without any instruction or feedback. In order to determine the effects of the implementation, pre- and post- form recognition tests and pre-and post-production tests were administered to the participants. Wilcoxon signed rank test for paired samples and Mann Whitney U tests were conducted since the data did not meet normality assumptions. The Wilcoxon test results indicated that the negative evidence group achieved significant improvement in both their recognition and production test results. As for the enriched input group, the students presented a considerable improvement in terms of the production test; however, their performance was not very significant on the recognition test results. To compare both groups, Mann Whitney U test was run and it was evident that both the negative evidence and enriched input groups had positive effects on the production of verb-noun collocations. On the other hand, the form recognition test results revealed that the negative evidence group outperformed the enriched input group.

¹Correspondence: email hokyar@konya.edu.tr
Keywords: negative evidence, enriched input, verb-noun collocations

1. Introduction and Literature Review

Many second language researchers have emphasized the importance of vocabulary in language learning success (e.g. Schmitt, 2010; Wilkins, 1972; Read, 2000). However, is knowing words in isolation -without their collocative partners- enough to express our thoughts and feelings efficiently? There is a well-known quotation coined by Firth (1957, p. 11): “You shall know a word by the company it keeps.” This valuable expression underlines the importance of collocations which are defined by Singleton (2000) as “words keeping company together” (p.47). Many language researchers (e.g. Lewis, 2000; Carter & McCarthy, 1988; Nesselhauf, 2003; Hill, 2000) have highlighted the importance of collocations in language learning. A lack of collocational knowledge causes problems for second language learners in conveying their valuable ideas properly (Hill, 1999). In addition to this, there are studies which underline the difficulty of verb-noun collocations (e.g. earn money, have a problem, lose weight) for learners of English (e.g. Nesselhauf, 2003; Phoocharoensil, 2011; Chan & Liou, 2005). With these problems in mind, this research study was designed to compare the effects of enriched input and negative evidence on verb-noun collocation learning.

According to Long (1996), second language learners are fed by two input types: one of them is positive evidence and the other one is negative evidence. First, positive evidence includes input which is defined as “the language that a learner is exposed to (i.e., from reading or listening, or, in the case of sign language from visual language)” (Gass & Mackey, 2007; 177). All second language approaches agree on the fact that input is required for the emergence of learning. (Gass & Mackey, 2007). According to well-known linguist Krashen’s (1991), Input Hypothesis, “only comprehensible input is consistently effective in increasing proficiency” (p.410). He also claims that “more skill-building, more correction, and more output do not consistently result in greater proficiency” (p. 410). Considering the main tenets of the Input Hypothesis, teachers need to make sure that students are provided with comprehensible input (Gass, Behney & Plonsky, 2013). In the literature, it is easy to see different kinds of input supplements based on these ideas such as enriched input and enhanced input. Reinders and Ellis (2009) define enriched input as “input that has been seeded with the target structure so that learners are exposed to high frequency over period of time” (p.282). Additionally, Reinders and Ellis (2009) describe enhanced input as “input where the target feature has been emphasized in some way – glossing, bolding or underlining” (p.283). These clear definitions indicate that while enriched input means providing learners with lots of exposure to the target form
without highlighting, the enhanced input means drawing learners’ attention to the target form by some special strategy such as writing the target words in bold or in italics. Schmitt (2000) highlights the fact that numerous exposures to the words ensure that learning will occur. Considering Schmitt’s (2000) idea, it can be said that enriched input has a beneficial influence on learning when learners encounter the words as many times as possible. Nevertheless, there are some crucial questions waiting to be answered: Is providing learners only with comprehensible input adequate for effective learning? Or, do learners need to see inappropriate uses of target language structures during their language learning adventure?

These critical questions lead us to explore the concept of negative evidence. Negative evidence refers to “direct or indirect information about what is ungrammatical” (Long, 1996, p.413). In other words, negative evidence is a way of triggering learners’ attention to the inappropriate use of target language structure (Mitchell & Myles, 2004; Gass, Behney & Plonsky, 2013). In the literature, it is also common for the term “negative evidence” to be called “corrective feedback” or “negative feedback” (Saxton, 2000; Schachter, 1991; Gass, 1997).

Committing errors is an inevitable part of the language learning process (Hendrickson, 1980). Taking into account the ideas mentioned previously, the following questions come to mind: During their language learning process, would it be appropriate to let the learners know what is not acceptable in the target language and correct their errors? Or would it be more sensible to let them learn at their own pace and give as much input as necessary? Contrary to the afore-mentioned ideas of Krashen (1991), there are researchers who believe in the positive effect of negative evidence on language learning (e.g. Swain, 1985; Long, 1996). For instance, Swain’s (1985) Output Hypothesis accepts the necessity of input for language learning; however, this hypothesis insists that input alone is not adequate for language improvement. Swain (1985) defends the significant role of output in the development of second language proficiency, arguing that providing learners with negative evidence has a facilitative role in language learning. In addition to this, another positive role of negative evidence can be linked to the Noticing Hypothesis. Schmidt (2012) claims that “people learn about the things that they attend to and do not learn much about the things they do not attend to” (p.27). Some researchers hold the opinion that negative evidence gives leaners a chance to realize the difference between their interlanguage and their target language’s form (Long, 1996; Reinders, 2010; Doughty & Williams, 1998; Ellis, 1991; Gass & Houck, 1999). Considering the contributions to language acquisition that have been made so far, this current study is determined to analyze the effects of both enriched input and negative evidence on the verb-noun collocation learning.
2. Research Questions

This following research questions were addressed in this study:

1. Is negative evidence significantly effective for the production and recognition of the verb-noun collocations?
2. Is enriched input significantly effective for the production and recognition of the verb-noun collocations?
3. Which method is more effective for the production and recognition of verb-noun collocations: providing learners with enriched input or with negative evidence?

3. Method

3.1 Participants

52 English preparation class students, learning English as a foreign language, participated in this research study. The participants were all native speakers of Turkish. There were two experimental groups in this study and these groups were randomly assigned to enriched input group (n= 25) or negative evidence group (n=27).

3.2 Testing Instruments

The researchers consulted two native speakers and used Oxford collocations dictionary (2002) while preparing the following tests.

a. Collocation familiarity test: In order to understand whether the students were familiar with verb-noun collocations, the researchers prepared a collocation familiarity test prior to the study. The test was composed of 30 items where each item had three answer options. One of the three options in each test item was a frequently used verb-noun collocation. The test was checked by two native speakers of English to ensure that there was no problem in terms of the answer options and the distractors of the test items. The students were required to choose the most appropriate option. After the tests were returned, the researchers chose 15 collocations to be studied during the research process.

b. Collocation form recognition test: After the results of the familiarity test were obtained, the researchers selected collocations that caused problems for the learners and prepared a form recognition test that covered 15 items. Each test item was composed of three options and one of those three options was a frequently used verb-noun collocation. Two native speakers of English were requested to take the test to see if there was a problem with the test items and the answer options. This test was applied as both a pre- and post-test. The order of the questions was changed in the post-test in order to
ensure the reliability of the results. The learners were asked to choose the most appropriate option with one point awarded for each correct answer and zero points awarded for an incorrect one. The following item exemplifies the form recognition test:

a) get an effort;
b) make an effort;
c) do an effort.

c. Collocation production test (Collocation gap-filling test): This test contained 15 fill-in-the gap questions and the students were provided with 10 verbs. They were required to fill in each blank with the correct verb that collocates with the subsequent noun. This test was also checked by two native speakers of English. Like the form recognition test, the order of the questions was altered in the post-test and each correct answer was awarded one point and each incorrect answer was awarded zero points. The item below exemplifies the test:

“She doesn’t like to _______ an argument with her family.”

3.3 Data Collection Procedure

<table>
<thead>
<tr>
<th>Enriched input group</th>
<th>Negative evidence group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collocation familiarity test</td>
<td>Collocation familiarity test</td>
</tr>
<tr>
<td>Pre-test (form recognition and production tests)</td>
<td>Pre-test (form recognition and production tests)</td>
</tr>
<tr>
<td>Implementation period (2 weeks)</td>
<td>Implementation period (2 weeks)</td>
</tr>
<tr>
<td>Post-test (form recognition and production tests)</td>
<td>Post-test (form recognition and production tests)</td>
</tr>
</tbody>
</table>

To begin, using the results of the collocation familiarity test, 15 verb-noun collocations were chosen to be covered in the study. Then, pre-tests were administered to both groups. 9-class-hours (45 min. each) were allocated for the treatment period which lasted two weeks. At the end of this period, both groups were given post-tests so as to see whether there was an improvement or not.

There were two instructors. One of them was one of the researchers who taught the negative evidence group. The other was her colleague who taught the enriched input group. Both instructors had more than 4 years of teaching experience. The treatment process for each group is presented below:

**Enriched Input Group:** A variety of reading texts retrieved from different course books (e.g. Pacesetter, 2000; Campus Life, 2008; New Century Readings, 1998) were used as an input source. The reading texts were adapted considering students’ levels. There were 13 reading texts in total with target collocations inserted into them so that the students had the chance to see the target collocations in a variety of texts. Schmitt
(2010, p.257) underlines an important fact that “A learner must read enough so that a new lexical item will be met again before its memory trace disappears.” The basic aim in preparing these reading texts was to provide participants with lots of exposure to the target collocations. After the students read each text, they were provided with a variety of activities related to the texts such as comprehension questions, matching exercises, and true-false activities; however, the instructor did not emphasize the target collocations. After the reading texts were completed, the teacher of this group used picture sets to tell some stories about them covering the target collocations. The teacher again did not highlight the target collocations through underlining, bolding or so on. The students in this group encountered each target collocation at least 7 times.

**Negative Evidence:** Pica (2009, p.80) indicated that negative evidence covers “corrective feedback, formal instruction, and requests for the learner to clarify or repeat a message.” Considering this, the researcher applied the following methods for the negative evidence group:

a) The researcher wrote sentences which included non-target use of verb-noun collocations on the board. Then students were asked to find out what was wrong with the target sentences. After that, students were supplied with the accurate verb-noun collocations.

b) The students were required to translate a Turkish sentence, requiring the use of the target verb-noun collocation, into English. The researcher wrote the students’ sentences on the board. After that, the instructor drew their attention to inaccurate collocation uses and provided them with the target verb-noun collocations.

c) Finally, the researcher used pictures. The researcher wrote the “noun” part of the “verb-noun” collocations. For instance, if the collocation was “give a speech”, the instructor wrote only “speech” on the board. After writing the noun parts, the students were required to use these nouns and tell at least three sentences about each picture. While doing this activity, most of the time the students used incorrect verb-noun collocations and the instructor corrected them.

**4. Results**

SPSS (Statistical Package for Social Sciences) version 22.0 was used for the analysis of the data. Mean and standard deviations were used for descriptive statistics. Normality analysis was performed by means of the Kolmogorov–Smirnov test. Since the variables did not show normal distribution (p<0.05), non-parametric tests were used for the analysis of the data. The Mann-Whitney U test was performed for continuous variables
between two groups. Also, Wilcoxon test was conducted to compare differences between pre- and post-test results within each group.

### 4.1 Pre-test Scores
The Mann Whitney U test was conducted to see whether the pre-test scores of the two groups were similar at the beginning of the study or not.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Negative Evidence Group</th>
<th>Enriched Input Group</th>
<th>U</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Production Pre-test</td>
<td>3,074</td>
<td>1,817</td>
<td>3,440</td>
<td>2,181</td>
</tr>
<tr>
<td>Recognition Pre-test</td>
<td>5,185</td>
<td>1,594</td>
<td>5,040</td>
<td>2,189</td>
</tr>
</tbody>
</table>

As illustrated in table 2, there was not a significant difference between the groups’ pre-test scores (p>0,05).

### 4.2 Comparison within negative evidence group
The first research question was:

*Is negative evidence significantly effective for the production and recognition of the verb-noun collocations?*

<table>
<thead>
<tr>
<th>Tests</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>N</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Production test</td>
<td>3,074</td>
<td>1,817</td>
<td>7,111</td>
<td>3,412</td>
<td>27</td>
</tr>
</tbody>
</table>

In order to see whether there was a significant difference between pre- and post-production test results of the negative evidence group, Wilcoxon signed rank test for paired samples was conducted. As shown in table 3, the difference between the means was statistically significant (Z= -4,166; p=0,000<0,05). The mean score of the production post-test (x=7,111) was higher than the mean score of the production pre-test (x=3,074). Specifically, the results indicated positive effect of negative evidence on production of verb-noun collocations.
In order to determine whether there was a significant difference between pre- and post-recognition test results of the negative evidence group, Wilcoxon signed rank test for paired samples was conducted. The findings revealed a statistically significant difference between the mean scores of the tests ($Z=-4.076; p=0.000<0.05$). The mean score of the recognition post-test ($x=8.630$) was higher than the mean score of the recognition pre-test ($x=5.185$). In line with the results, it can be said that negative evidence was effective in terms of recognition of verb-noun collocations.

### 4.3 Comparison within enriched input group

The second research question was:

*Is enriched input significantly effective for the production and recognition of the verb-noun collocations?*

In order to see whether there was a significant difference between pre- and post-production test results of the enriched input group, Wilcoxon signed rank test for paired samples was performed. According to the results, the difference between the mean scores was statistically significant ($Z=-3.358; p=0.001<0.05$). The mean score of the production post-test ($x=5.640$) was higher than the mean score of the production pre-test ($x=3.440$). This result showed that there was a positive effect of enriched input on production of verb-noun collocations.
According to the table, providing students with enriched input was not very effective on the form recognition of verb-noun collocations.

4.4 Comparison between groups
The last research question of this study was:

Which method is more effective for the production and form recognition of verb-noun collocations: enriched input or negative evidence?

To answer this question, the Mann Whitney U test was employed to see whether there was a difference between two groups considering form recognition and production test results.

Table 7: Comparison of production post-test results between groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Negative Evidence</th>
<th>Enriched Input</th>
<th>U</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Production Post-test</td>
<td>7,111</td>
<td>3,412</td>
<td>5,640</td>
<td>2,531</td>
</tr>
</tbody>
</table>

As shown on the table above, mean score in negative evidence group was higher than the mean score of enriched input group. However, there was no statistically significant difference between the two groups in terms of production of verb-noun collocations (U=252,00; p=0,114; p>0,05). In other words, the learners who were exposed to the verb-noun collocations through negative evidence and those who were exposed to them through enriched input achieved similar results regarding production test results. The diagram below shows the production test results of both groups:

Figure 1: Production test results of both groups
Table 8: Comparison of recognition post-test results between groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Negative Evidence</th>
<th>Enriched Input</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Recognition Post-test</td>
<td>8,630</td>
<td>2,803</td>
<td>6,080</td>
<td>2,629</td>
</tr>
</tbody>
</table>

As the table presents, there was a statistically significant difference between the two groups in terms of recognition of verb-noun collocations (U= 170,000; p=0.002; p<0.05). The recognition post-test mean score (x=8,630) of negative evidence group was higher than the enriched input group’s mean score (x=6,080). The students who were provided with negative evidence showed better performance in the form recognition post-test than the students who were exposed to enriched input. The following diagram shows the recognition test results of both groups:

5. Discussion

A. Is negative evidence significantly effective for the production and recognition of the verb-noun collocations?

As was mentioned in the results section, this research study found that negative evidence had positive effects on both the production and recognition of verb-noun collocations. In examining the literature, there are previous research studies that indicated the positive effects of negative evidence on learning different linguistic structures (e.g. Abolhasanpour and Jabbari, 2014; Izumi and Lakshmanan, 1998). According to the results of the within group analysis of the negative evidence group, participants of this current study showed a significant improvement from pre- to post-tests.
B. Is enriched input significantly effective for the production and recognition of the verb-noun collocations?

These findings were evaluated in terms of both production and form recognition. First of all, the post-test results of the study indicate that enriched input was very effective for the production of verb-noun collocations. The students showed a considerable improvement in terms of production. However, when it comes to the form recognition test of verb-noun collocations, no considerable improvement was made. Although there was an increase in the mean scores from pre-to post-recognition test, this increase was not statistically significant. The probable cause of this result will be discussed below.

C. Which method is more effective for the production and recognition of verb-noun collocations: providing learners with enriched input or with negative evidence?

The findings indicate that both negative evidence and enriched input had a facilitative role on the production of verb-noun collocations. On the other hand, the results of the form recognition post-tests show that the negative evidence group performed better than the enriched input group. One possible reason for this result may be linked to the procedures of the treatment process. For instance, the students in the negative evidence group were taught what was not acceptable in terms of verb-noun collocations. Contrary to this, the students in the enriched input group did not see what was not acceptable even though they were exposed to the target collocations many times. Therefore, it can be put forward that as the attention of the students in the negative evidence group was drawn to the unacceptable collocations, recognizing the correct collocation forms was not very difficult for them. This is in line with Schmidt’s (2012) idea which emphasizes the significant place of attention in learning. Also, Mahvelati and Mukundan (2012) compared the effects of the consciousness-raising approach and input flood on the learning of lexical and grammatical collocations and found that both techniques were beneficial for the learning of target structures. However, it was also reported that the consciousness-raising approach group showed better performance than the input flood group. Similar to this, the current study’s form recognition post-test results demonstrated the superiority of the negative evidence group over the enriched input group. Moreover, Hernandez’s (2008) research findings demonstrated that input flooding when accompanied by explicit instruction was better than the sole application of input flood in triggering learners to use discourse markers in Spanish.

Trahey and White (1993) searched for the effects of the input flood technique on French speaking students’ learning of English adverbs, exposing students to enriched input for two weeks. The researchers found an increase in the use of English adverbs;
however, the enriched input did not prove to be successful in reducing the incorrect grammatical forms based on the participants’ first language. Their findings suggest that negative evidence might be helpful for the accurate use of the target structures. Also, Izumi and Lakshmanan’s study (1998) found that the group who learned English passives through negative evidence demonstrated superiority over the group who did not receive negative evidence. Contrary to this, Hernandez (2011) stated that “exposure to an input-rich environment combined with meaningful, task-essential practice is sufficient to promote SLA” (p. 177). There are also studies that indicate the benefits of both positive and negative evidence in learning. For instance, Jiang and Yi (2014) reported that positive evidence as well as negative feedback had beneficial effects on the learning of third person singular by Chinese learners of English. All in all, according to the findings of the current study it can be said that both enriched input and negative evidence have facilitative role in production of target language structures, that is to say, verb-noun collocations. However, as for the recognition of verb-noun collocation forms, findings underline the superiority of negative evidence over enriched input.

6. Pedagogical Implications and Suggestions for Further Studies

This study attempted to find out the effects of negative evidence and enriched input on learning the target verb-noun collocations. The findings of this current study show the benefits of both negative evidence and enriched input in terms of production of verb-noun collocations, while also documenting the superiority of negative evidence over enriched input in terms of the recognition of frequently used verb-noun collocations. Considering this fact, combined methods like enriched input and negative evidence can be used to teach target collocations more effectively. This study focused on the short term effect of both treatment types. Therefore, further studies may also take into account the long-term effects of these treatments. Additionally, in this study enriched input and negative evidence treatments were put into use separately, future studies can also look at the effects of combining these methods. Another point that needs to be touched upon is that this study only covered verb-noun collocations and therefore, further studies may focus on the effects of negative evidence and enriched input on different types of collocations such as noun+preposition, adjective+preposition, verb+adverb.
References


