The Effect of Explicit Instruction on the Acquisition of Infrequent Formulaic Sequences

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Abstract

The purpose of the present study is to investigate the effect of explicit instruction on the acquisition of infrequent formulaic sequences (FSs) by second language (L2) learners. To achieve this, I used pen-and-paper tests to measure the participants’ productive and receptive knowledge of the target FSs before and after the treatment. I also investigated the effect of explicit instruction on L2 learners’ use of FSs in their writing. The participants wrote an opinion essay before and after the treatment. The results of the pen-and-paper tests showed that the participants’ knowledge of the target items was enhanced both productively and receptively. The finding suggests that formulaic sequences can be learned explicitly before they are acquired through implicit cognitive processes. A qualitative analysis of the essays revealed that L2 learners are able to use infrequent formulaic sequences in writing if taught explicitly, suggesting that not only forms, but also form-meaning relationships can be learned through explicit instruction.

Keywords: Formulaic sequences, explicit learning, second language teaching

1. Introduction

FSs have been the focus of research in various linguistic fields for the last three decades (Schmitt, 2004; Sinclair, 1991; Wray, 2002). According to the most often-cited definition by Wray (2002, p. 9), FSs are defined in academic fields as follows.

a sequence, continuous or discontinuous, of words or other elements, which is, or appears to be, prefabricated: that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar.

According to the definition, any multiword sequences can be FSs if stored holistically, and therefore FSs is an umbrella term for such multiword units.

It has been suggested that language is not always generated by syntactic operations, but rather, humans rely heavily on FSs for an effective communication (Erman, Forsberg, Lundell & Lewis, 2016; Kuiper & Hago, 1984; Pawley & Synder, 1983; Wray, 2002). In addition, recent
years have seen a growing body of evidence that formulaic language is somehow easier to process for both native and non-native speakers (Conklin & Schmitt, 2008; Siyanova-Chanturia, Conklin & Van Heuven, 2011; Underwood, Schmitt & Galpin, 2004).

This led researchers in language teaching research to study the effects of instruction on the acquisition and use of FSs by L2 learners (Boers, Eyckmans, Kappel, Stengers & Demecheleer, 2006; Boers & Lindtromberg, 2009, 2012; Schmitt, Dörnyei, Adolphs & Durow, 2004), and previous studies have found positive effects of explicit instruction on the acquisition of FSs including collocations (e.g., Boers, Demecheleer, Coxhead & Webb, 2014; Laufer & Girsai, 2008; Nouzar & Nouroldin, 2016; Peters, 2014; Szudarski, 2012) and other FSs (e.g. Bishop, 2004; Peters, 2012). However, the number of studies that investigated the effect of instruction on the acquisition of FSs other than two-word collocations is limited. In addition, previous research only looked at the effect of instruction on the acquisition of high-frequent FSs and whether such effects can be extended to the acquisition of infrequent FSs is an open question (Szudarski & Carter, 2016). The present study therefore investigates the effects of explicit instruction on the acquisition of infrequent FSs.

2. Background

2.1 Theories of the Acquisition of FSs

Ellis (2001) proposed one model of learning formulas in a first language. Ellis suggests that FSs are acquired through a psychological mechanism called ‘chunking’, which is a basic associative learning process by which humans implicitly learn the association between letters, words, and other larger units of language. According to the theory, words that frequently occur together in the input will be chunked in the lexicon and represented in the long-term memory as chunks. The term chunking was first introduced by Miller (1956), who argued that the capacity of human short-term memory can be increased by chunking. In a more classic study in psychology, William James proposed ‘the law of contiguity’, which states that “objects once experienced together tend to become associated in the imagination, so that when any of them is thought of, the others are likely to be thought of also, in the same order of sequence or coexistence as before” (James, 1890, p. 561).

2.2 The Necessity to Teach FSs

While Ellis (2003) suggests that chunking also applies to SLA, other studies have found that L2 learners’ knowledge of FSs falls behind that of native speakers (Bahns & Eldaw, 1993; Farghal & Obeidat, 1995; Granger, 1998). One model which suggests a fundamental difference between formula acquisition in first language and L2 was proposed by Wray (2002), who argued that adult L2 learners have fundamentally different mechanisms for formula acquisition, and that adult learners are more likely to acquire single words than formulaic word strings. Ellis (2005)

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sees the importance of explicit instruction on FSs in L2 learning, suggesting that explicitly learned FSs may be implicitly chunked in the long-term memory later as shown by Hulstijn (2002). Furthermore, it is also suggested that unlike leaning forms of FSs, learning form-meaning relationships of FSs requires conscious attention (Ellis, 2005). In addition, it has been shown that L2 leaners in general do not receive sufficient input to acquire FSs implicitly through chunking as compared to native speakers (Durrant & Schmitt, 2009; Ellis, Simpson-Vlach & Maynard, 2008; Ellis, Simpson-Vlach, Römer, Brook O'Donnell, & Wulff, 2015; Granger & Bestgen, 2014; Schmitt, 2012). Taken together, L2 learners need to be taught FSs explicitly because adult learners may not be able to learn FSs as children do or because they do not receive sufficient input.

2.3 The Effects of Explicit Instruction on FSs

It is generally agreed that L2 learners learn the target language more effectively in an explicit learning condition than in an implicit learning condition (Norris & Ortega, 2000). Recent studies have shown that this is also true for the acquisition of FSs (for a review, see Boers & Lindstromberg, 2012). Schmitt’s et al. (2004) study is one of the first to investigate the acquisition of FSs. They studied how advanced English learners’ receptive and productive knowledge of FSs change over time as a result of instruction. Their finding was that knowledge of FSs can be enhanced by instruction. Based on the testing measure adopted in the study, many have attempted to study the acquisition of FSs in the last decade.

So far, a growing body of evidence shows that explicit instruction is effective for the acquisition of two-word collocations (Boers et al, 2014; Laufer & Girsai, 2008; Peters, 2014; Szudarski, 2012). To ensure that these effects are the result of explicit instruction rather than the effect of implicit learning ability of the learners, some studies have compared the effect of explicit instruction condition and implicit learning condition.

Szudarski (2012) has found that Focus-on-form instruction enhances learners’ collocational knowledge at both the productive and receptive level, whereas focus on meaning instruction did not show such effect. In focus-on-form group, participants read stories and completed explicit exercises on collocations, whereas participants in focus on meaning group read the same stories, but did not receive any explicit instruction on collocational patterns. In a more recent study, Nouzar and Nouroldin (2016) investigate the effect of different learning conditions on the acquisition of FSs. The explicit group received awareness raising instruction on the target collocations, while the implicit group received no such instruction, but instead they were exposed to the input that contained the collocations. The participants’ knowledge of the collocations was measured in three multiple-choice tests before and after the treatment. The results showed that explicit group outperformed the implicit group in both post and delayed posttest. Although the effects of explicit instruction on the acquisition of collocations have been shown in many studies, research investigating such effects for the acquisition of other FSs is scant, with the exceptions of
Bishop (2004) and Peters (2012), who both showed that typographic salience which draws learners’ attention to the FSs is effective for the acquisition of FSs.

In addition to this, the previous research has the limitation of targeting only those FSs that have high frequency. According to Wood (2015), 10 to 40 occurrences per million words in a corpus are the minimum frequency cutoffs in previous studies. However, as Durrant and Schmitt (2009, 2010) suggested, L2 learners learn formulaic language incidentally from exposure. This means that high frequency sequences may have been met in the learners’ input. FSs with relatively low frequency, on the other hand, are not acquired until learners encounter them as many times as necessary. Therefore, to investigate the effect of explicit instruction itself, it is more useful to study the effect of instruction on the acquisition of low-frequency FSs. Boers and Lindstromberg (2009, p. 62) also suggested that “helping students to progress beyond beginner level requires the targeting of chunks between the highest and the lowest frequency bands”. In short, while previous studies have shown the effect of instruction to some extent, little is known about whether the same effect can be seen on the acquisition of low-frequency items.

Szudarski and Carter (2016) recently addressed the issue in their intervention study. They investigated the acquisition of infrequent collocations, comparing the effects of focus-on-meaning and focus-on-form. The results showed that even infrequent collocations can be acquired at the receptive level if taught explicitly, suggesting that collocations are not only learned by an implicit process of chunking, but they are also learned explicitly. However, whether the effects are generalizable to FSs other than two-word collocations remains an open question. Therefore, the present study investigated the effect of explicit instruction on the acquisition of infrequent FSs other than collocations. The study also investigated the effect of instruction on the use of such FSs in writing to see whether the study has a practical implication for the teaching of English.

3. Research Questions

The present study seeks to answer the following research questions:
1. Do English as a foreign language (EFL) learners acquire productive knowledge of infrequent FSs through explicit instruction?
2. Do EFL learners acquire receptive knowledge of infrequent FSs through explicit instruction?
3. Does an explicit instruction have the effect on EFL learners’ use of FSs in writing?

4. Method

4.1 Participants

The present study was conducted as part of the undergraduate course in English linguistics for English majors at a private university in Hokkaido, Japan. The participants included 21 undergraduate students (male = 3; female = 18) who were either in their third or fourth year of
university study with a first language of Japanese. The mean age of the participants was 20.6 years (maximum = 22; minimum = 20). The proficiency of the participants could be seen as intermediate to advanced level with the scores in TOEFL (ITP) ranging from 460 to 604 (mean = 503.5; SD = 35.68).

4.2 Target Items

The target FSs for the present study were 18 FSs which were chosen based on three criteria as follows: Discourse function, frequency, usefulness. First, I extracted 86 candidate FSs from three books (Fujii & Nomura, 2003; Nattinger & DeCarrico, 1992; Wallwork, 2016). All candidates were chosen based on their discourse functions. Since the task employed for both the pre- and posttest was a task in which participants were asked to give opinions with more than one reason, I chose FSs that were likely to be elicited by the task.

Second, to make sure that the target FSs occurred in authentic contexts, I used Corpus of Contemporary American English (COCA). The corpus contains more than 520 million words of text of American English. To control the target FSs in terms of frequency, I used only FSs that had at least 500 occurrences in COCA (their frequency per million words are shown in table 1). Based on this criterion, I chose 34 candidate FSs from 86 candidates. 500 occurrences in COCA (520 million words) may seem relatively few given the fact that 500 occurrences mean their occurrences per million words is less than one. However, as mentioned earlier, the purpose of the present study was to test whether the effect can be generalized to FSs with lower frequency, and therefore the frequency cut-offs were set lower.

Finally, the candidates were evaluated for their usefulness by four EFL teachers (2 native speakers of English and 2 non-native speakers of English) through a questionnaire. They were asked to rate on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) according to the amount of their agreement or disagreement with the following statement: This expression is useful for intermediate-level EFL students. Only those that got the average of more than 4.5 points were chosen for the target items except one item ‘first and foremost’ which got 4.0. The final target FSs are shown in table 1 with frequency counts from COCA. Note that for FSs with frequency of less than one per million, the number was rounded off to the second decimal place.
Table 1

FSs Identified for Instruction with Frequency Counts from COCA.

<table>
<thead>
<tr>
<th>Formulaic sequence</th>
<th>Function</th>
<th>COCA (number of texts)</th>
<th>Frequency in COCA (per million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 the reason is that</td>
<td>giving reasons</td>
<td>504</td>
<td>0.9</td>
</tr>
<tr>
<td>2 to begin with</td>
<td>giving reasons</td>
<td>3570</td>
<td>6</td>
</tr>
<tr>
<td>3 first off</td>
<td>giving reasons</td>
<td>906</td>
<td>1</td>
</tr>
<tr>
<td>4 to start with</td>
<td>giving reasons</td>
<td>2377</td>
<td>4</td>
</tr>
<tr>
<td>5 most of all</td>
<td>giving reasons</td>
<td>2710</td>
<td>5</td>
</tr>
<tr>
<td>6 most importantly</td>
<td>giving reasons</td>
<td>2369</td>
<td>4</td>
</tr>
<tr>
<td>7 first and foremost</td>
<td>giving reasons</td>
<td>1961</td>
<td>3</td>
</tr>
<tr>
<td>8 what I'm saying is</td>
<td>summarizer</td>
<td>720</td>
<td>1</td>
</tr>
<tr>
<td>9 in any case</td>
<td>summarizer</td>
<td>4577</td>
<td>8</td>
</tr>
<tr>
<td>10 as I mentioned</td>
<td>referring backward</td>
<td>839</td>
<td>1</td>
</tr>
<tr>
<td>11 as I said</td>
<td>referring backward</td>
<td>4127</td>
<td>7</td>
</tr>
<tr>
<td>12 the truth is</td>
<td>emphasizing</td>
<td>4645</td>
<td>8</td>
</tr>
<tr>
<td>13 the fact is that</td>
<td>emphasizing</td>
<td>2162</td>
<td>4</td>
</tr>
<tr>
<td>14 more precisely</td>
<td>paraphrasing</td>
<td>1023</td>
<td>1</td>
</tr>
<tr>
<td>15 despite the fact that</td>
<td>concession</td>
<td>2994</td>
<td>5</td>
</tr>
<tr>
<td>16 as we all know</td>
<td>stating something obvious</td>
<td>537</td>
<td>1</td>
</tr>
<tr>
<td>17 as far as I know</td>
<td>expressing opinions</td>
<td>946</td>
<td>1</td>
</tr>
<tr>
<td>18 it turned out that</td>
<td>qualifier</td>
<td>1965</td>
<td>3</td>
</tr>
</tbody>
</table>

4.3 Treatment

I met the participants once a week in a regular 90-minute class for 4 months during the semester. Thirty minutes of the class was devoted to teaching two target FSs each week, except for the first week which was used for awareness-raising of the importance of learning FSs explicitly. I then, taught the 18 target FSs to the participants in the following ways.

First, I presented the target items to the participants with Japanese translations and example sentences. I showed the participants a video clip from TED Talk for each target item using TED Corpus Search Engine created by Hasebe (2015). Before playing the video clip, I gave a brief summary of the video to inform the participants with the context. Each video clip was played only once with English subtitles. After showing the video clips, the participants were given a writing task in which they were asked to deliberately use the target items in their writing. The purpose of the task was to ensure that the participants learned an appropriate way of using the FSs. They
successfully completed the task for all the target items though they sometimes used them in non-native like ways.

4.4 Testing Measures

The purpose of this study was to investigate the effect of instruction on the acquisition of the target FSs and the use of target FSs in writing by the participants. To achieve this, I developed two tests for measuring productive knowledge and receptive knowledge respectively. Based on previous studies (Mahvelati & Mukundan, 2012; Nouzar & Nouroldin, 2016; Schmitt et al, 2004; Shooshtari & Karami, 2013; Szudarski, 2012), I adopted a gap-filling test for the productive measurement instrument, and a multiple-choice format for the receptive measurement. To control the vocabulary level of all the words in the test except the target items, I used only words that are marked level 3 or lower in JACET 8000 LEVEL MARKER (Shimizu, 2009).

An example of the gap-filling test is:

Example) There are three reasons why we should study English. T____ be____ wi______, you can get a better job. (first)
[Answer: To begin with]

As can be seen above, the first one or more letters were given in bold font to eliminate any other possible answers. The first one letter was given for words having 1 to 3 letters. The first 2 letters were given for words having 2 to 6 letters. Finally, the first 3 letters were given for words having more than seven letters. The meaning provided in the brackets are taken from Longman (2009), Soanes and Stevenson (2005), Parkinson and Francis (2006).

For the multiple-choice test, a blank was inserted in a context and the participants were asked to choose a FS that is most natural in the context. A native speaker ensured that the distractors cannot be possible answers in the given context. In addition to the 4 choices, another choice ‘I don’t know’ was given to the participants to minimize the possibility that they answer randomly. An example of the test format is:

2) You must be dressed properly tonight. __________, the president is coming to the party.
   a) As I said
   b) As I told
   c) As I could
   d) As I looked
   e) I don’t know
[Answer: a]

I piloted both tests on three native speakers of English, who all scored 18 out of 18 in both tests. I used the same tests for both pre- and post-test, with changes in the order of the questions.

Second, I studied the participants’ use of FSs in writing using a task in which they were asked to give opinions as to whether they agree or disagree with a given statement. They were also
required to give more than one reason to support their opinion. This task was designed in such a way that the participants have as much chance to use the target items as possible.

5. Results

5.1 Research Question 1

The first research question concerned the effectiveness of the explicit instruction on the participants’ productive knowledge of the FSs. To answer this question, I compared pretest and posttest results of their productive knowledge, which are presented in Table 2 and 3. As shown in Table 2, the mean score of the post test was more than twice as high as that for the pretest.

To see whether the difference between the pretest and posttest results were statistically significant, I conducted a Wilcoxon signed-ranks test on the two tests. I used a non-parametric test since the data were not normally distributed. A statistically significant difference was found between the two tests ($z = 3.967$, $p < .001$, $r = .86$). In addition, the effect size larger than 5 for a Wilcoxon signed-ranks test indicates a large effect size.

Table 2

Pretest and Posttest Results of Tests of Productive Knowledge of FSs

<table>
<thead>
<tr>
<th>Test</th>
<th>$n$</th>
<th>$M$</th>
<th>SD</th>
<th>Maximum</th>
<th>Median</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>pretest</td>
<td>21</td>
<td>5.33</td>
<td>3.65</td>
<td>15</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>posttest</td>
<td>21</td>
<td>13.47</td>
<td>5.21</td>
<td>18</td>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 3

Ranks for the Results of Tests of Productive Knowledge of FSs

<table>
<thead>
<tr>
<th>N</th>
<th>Mean rank</th>
<th>Sum of ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second - First</td>
<td>Negative</td>
<td>1.50</td>
</tr>
<tr>
<td>Positive</td>
<td>23</td>
<td>12.98</td>
</tr>
</tbody>
</table>

5.2 Research Question 2

The second research question addresses the question of whether the participants acquire receptive knowledge of the target FSs through explicit instruction. To answer the question, I compared pretest and posttest results of their receptive knowledge, which are presented in Table 4 and 5. As Table 4 shows, the mean score of the post test was higher than that for the pretest.

To see whether the difference between the pretest and posttest results were statistically significant, I conducted a Wilcoxon signed-ranks test on the two tests. A statistically significant difference was found between the two tests ($z = 3.833$, $p < .001$, $r = .83$). Again, the effect size was larger than 5, which indicates a large effect size.
Table 4
Pretest and Posttest Results of Tests of Receptive Knowledge of FSs

<table>
<thead>
<tr>
<th>Test</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>Maximum</th>
<th>Median</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>pretest</td>
<td>21</td>
<td>12.76</td>
<td>3.92</td>
<td>18</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>posttest</td>
<td>21</td>
<td>17.38</td>
<td>1.28</td>
<td>18</td>
<td>18</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 5
Ranks for the Results of Tests of Receptive Knowledge of FSs

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean rank</th>
<th>Sum of ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second - First</td>
<td>22</td>
<td>11.50</td>
<td>253</td>
</tr>
<tr>
<td>Tie</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.3 Research Question 3

In order to answer the third question which explored the effects of explicit instruction on the participants’ use of the target FSs in writing, I analyzed the two essays for each participant, which amounted to a total of 42 essays in all. First, I counted the raw number of the target items used using AntConc 3.4.4w (Anthony, 2016). Table 6 presents the number of the target items used in the two tasks. As can be seen in the table, the number of target item use is too small to conduct a statistical test. Therefore, the writing data were not statistically analyzed, but instead analyzed qualitatively.

In order to explore the relationship between the use of FSs and the participants’ knowledge of FSs, I counted the number of the participants’ use for each item, which is shown in Table 7 below. First, an obvious rise in the number of target items used in writing can be seen in the table, with only one item found in the 21 essays for the first task, which was written before the treatment. In the second task, which was written after the treatment, some FSs apparently have their popularity over others. Namely those FSs that can be used for giving reasons: the reason is that (4), to begin with (5), first off (5), first and foremost (3). These were the only ones that obtained more than 1 while the other items obtained either 1 or less. The actual contexts in which the 4 items were used are provided below.

“The reason is that to speak English, we have to change Japanese style like SOV to English style like SVO, therefore we have to understand English grammar very much.”

“I totally disagree with this statement, because two reasons. To begin with, age does not connect with improving English skill directly.”
“I disagree with this statement that English education in Japanese elementary schools will increase the number of people who can speak English. **First off,** in present situation, most Japanese people study English in junior high schools and in high schools at least for six years.”

“I strongly disagree with this statement saying that English education in Japanese schools will increase the number of English speakers. **First and foremost,** the teachers are not well prepared or educated enough to teach English.”

Table 6

*The Number of the Target FSs Used in Writing*

<table>
<thead>
<tr>
<th>Task</th>
<th>Sum</th>
<th>$M$</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>1</td>
<td>0.048</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Second</td>
<td>23</td>
<td>1.095</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 7

*The Number of the Participants’ use for Each Item*

<table>
<thead>
<tr>
<th>Item</th>
<th>First</th>
<th>Second</th>
</tr>
</thead>
<tbody>
<tr>
<td>the reason is that</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>to begin with</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>first off</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>to start with</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>most of all</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>most importantly</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>first and foremost</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>what I’m saying is</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>in any case</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>as I mentioned</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>as I said</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>the truth is</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>the fact is that</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>more precisely</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>despite the fact that</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>as we all know</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>as far as I know</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>it turned out that</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
6. Discussion

6.1 The Acquisition of Formulaic Sequences

The present study investigated the effects of explicit instruction on the participants’ knowledge of infrequent FSs. First, the results of the pretest and posttest indicate that EFL learners acquire both productive and receptive knowledge of infrequent FSs through explicit instructions. The results show that Szudarski and Carter’s (2016) findings that L2 learners acquire infrequent collocations through explicit instructions can be extended to infrequent FSs which contain more than two words. The results are also in line with Norris and Ortega (2000), who found that explicit instruction accelerates the acquisition of language.

Although one or two exposures to FSs may leave some traces in learners’ memory (Durrant & Schmitt, 2010; Gurevich, Johnson & Goldberg, 2010; Rott, 2009) as Ellis’s (2001) model of formula acquisition suggests, it is unlikely that the gains in knowledge of FSs in the present study is the result of implicit learning processes of chunking because forming links of form and meaning of FSs requires conscious attention (Ellis, 2005). In addition to this, Sonbul and Schmitt (2013) claim that even forms of FSs cannot be learned implicitly in such a short period of time. Therefore, the large effect size (i.e., larger than 5 for a Wilcoxon signed-ranks test) of the instruction in the present study can be interpreted as evidence for the effect of explicit instruction.

When comparing the effect for productive and receptive knowledge of FSs respectively, it was shown that receptive knowledge of FSs is acquired more easily than productive knowledge, which is in line with the previous studies (Mahvelati & Mukundan, 2012; Schmitt et al, 2004; Shooshtari & Karami, 2013; Szudarski, 2012). First, the results of the pretest show that the participants had had receptive knowledge of FSs to a greater extent. The results of the posttest also indicate that receptive knowledge of FSs is more easily acquired. One of the reasons for this is that for the test of receptive knowledge, the participants’ knowledge of form was sufficient to choose the correct answer in the multiple-choice format. In addition, they did not need to be able to spell all the constituent words accurately whereas in the gap-filling test, they need to know how to spell the words to answer correctly.

Another limitation of the present study was that it is likely that most of the target FSs were comprised of words that the participants had already known. All the words in the target items are marked level 3 or lower in JACET 8000 LEVEL MARKER except for the two items that are marked level 5 and 7 respectively. Studies have shown that the existing knowledge of the target language facilitates the acquisition of lexical items (Gathercole, Hitch, Service & Martin, 1997; Kasahara, 2010, 2011; Zhang, 2017). Therefore, in future research, focus needs to be directed to whether the results can be generalized to the acquisition of FSs that contain more unknown words.

Despite the limitations discussed above, the finding of the present study is important in that it demonstrated the effects of explicit instruction on the acquisition of infrequent FSs that contain
more than two words. This is because the previous studies only dealt with frequent FSs and it is possible that the participants in those studies had already learned the target items through chunking. The present study showed the effect of explicit instruction in a more controlled condition by minimizing the possibility that the participants had seen the FSs so many times that they had already ‘chunked’ them before the treatment.

6.2 The Use of Instructed FSs in Writing

First of all, a quantitative analysis of the participants’ essays before and after the treatment shows an increase in the use of the target items in their writing. However, the number of the FSs used was so small that statistical analyses would not reveal any fruitful facts. One reason for the small number of the FSs used is the short length of the essays. Since the participants were required to finish their essays in a limited time of 20 minutes, the length of the essays was also limited. That is to say, writing longer texts would reflect the writers’ knowledge more accurately. It is also necessary to take it into consideration that language users’ knowledge of lexical items will not always lead to the use of them in a specific context.

A qualitative analysis of the essays revealed that some FSs were used more frequently than others. In the present study, the writing tasks were designed in such a way that they give the participants chances to use the target items. As predicted, the FSs that have a function of giving reasons were used more often than others because the tasks required the participants to give reasons to support their opinions.

A pedagogical implication from this finding is that L2 learners are able to not only acquire forms of FSs, but also use FSs in writing if taught explicitly. Therefore, teaching FSs that are useful in writing would be fruitful in various learning contexts such as an academic writing course in universities.

7. Conclusion

The present study investigated the effect of explicit instruction on the acquisition of infrequent FSs by EFL learners and the use of such FSs in writing. Using two pen-and-paper tests of productive and receptive knowledge of FSs, it was found that infrequent FSs that contain more than two words can be learned through explicit instruction. This finding is particularly important because it shows that FSs can be learned effectively before they are acquired through the implicit process of chunking, as suggested by Ellis (2005). The study also showed that L2 learners not only acquire forms of FSs but also use such FSs in writing. In future research, it will be important to investigate the acquisition of FSs that contain unknown words in an instructional setting.
References


