Vocabulary Learning Strategy Instruction: It’s Impact on English for Specific Purpose Vocabulary Achievement and Reading Comprehension

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Abstract: This study examined the effect of vocabulary learning strategy instruction on ESP vocabulary achievement and reading comprehension of students at academic level. To achieve this purpose, a language proficiency test of Nelson was administered to sixty-six of Islamic Azad University students of Dareshahr majoring in Accounting. The students' scores were between 36-40 (M= 38.15). Therefore, these two classes were randomly assigned to control group and experimental group. Both groups worked on the equivalent reading passages. The students in experimental group were also instructed in vocabulary learning strategies and the use of vocabulary learning strategies while the students in control group received conventional teaching vocabulary training without any treatment for 12 sessions. The result of the post-test showed that vocabulary learning strategy instruction had positive impact on ESP vocabulary achievement and reading comprehension of students. The findings of Strategy Inventory Language Learning and Think-aloud protocols also indicated that cognitive strategies are the most frequent strategies employed by students in experimental group. The results of the study suggested the importance of including language learning strategies into language courses and training the language learners to use strategies as frequently as possible to make language learning easier and more effective.

Key words: Reading comprehension · ESP vocabulary achievement · Vocabulary Learning Strategies (VLS)

INTRODUCTION

Vocabulary is central to language and is of great significance to language learners. Words are the building blocks of a language since they label objects, actions, ideas without which people cannot convey the intended meaning. In the last decades there has been an increasing interest in vocabulary learning strategies given that they are found to facilitate second/foreign language vocabulary learning [1-10]. Research on the use of vocabulary strategies has revealed differences among learners in terms of their strategy use. Successful vocabulary learners were found to be active strategy users who were conscious of their learning and took steps to regulate it, whereas poor learners displayed little awareness of how to learn new words or how to connect new words to old knowledge [11-13]. Thus, a learner needs to be given explicit instruction to become more aware of and proficient with the broad range of strategies that can be used through the learning process [14-19].

According to [20], learning, retaining and recalling the new words meaning have always been the main concern of not only EFL learners in reading comprehension, but also those who want to learn English language outside the academic atmosphere. When EFL learners starting to read a text, what comes to their minds is how to learn and recall the new vocabulary meanings; most EFL learners, for example in Iran, in order to learn new vocabulary items meaning, memorize words with their meanings by repeating them several times but after a few days, they forget the meanings and consequently they cannot improve reading effectively. This problem may stem from the lack of teaching vocabulary strategies in EFL classes. Of course, there are some learners that use some strategies unconsciously and since they are not aware of these strategies, they cannot improve their vocabulary learning and reading comprehension. Therefore, it is necessary for teachers to make learners aware of strategies that they use unconsciously and when necessary, to teach them new strategies in order to learn
vocabulary items effectively and improve their reading comprehension. Hence, based on the significance attributed to vocabulary learning strategies in the process of vocabulary learning and enhancement, the present study aims at examining the effect of vocabulary learning strategy instruction on ESP vocabulary achievement and reading comprehension of students at academic level.

MATERIALS AND METHODS

In this study two undergraduate EFL classes (45 males and 21 females) from Islamic Azad University of Dareshahr, in Ilam majoring in Accounting in a compulsory course of English for Accounting Science participated. The ages of the participants ranged from 21 to 24. After administering a language proficiency test of Nelson [21] to these students, it was observed that the students’ scores were similar to each other (between 36-40). Therefore, these two classes were randomly assigned to control group and experimental group.

Instrumentation

The Following Instruments Were Used in this Study:

Two tests (pre-test and post-test) were used in this study. The first one (pre-test) was language proficiency test which was used as a standardized measure to check the homogeneity of students in terms of language proficiency (r=.87, based on KR-21 formula). The second one, the vocabulary and reading comprehension test (as a post-test) that the reliability of the test was ( r=.89) based on KR-21 formula. The test items were mainly selected from the ten units to be covered during the course in both groups (the number of items in vocabulary test was 20 multiple-choice questions and in reading comprehension test was 20 multiple-choice questions). The test was given to both groups on the last day of the course. Another instrument was the Strategy Inventory for Language Learning [5], otherwise known as the SILL (Appendix A). The SILL was given the students in experimental group twice, before the treatment to serve as a needs analysis tool and also to guide the researcher in planning and shaping the strategy instruction (SILL 1) and after the treatment to help the researcher in identifying any changes in the use of vocabulary learning strategies (SILL 2) (the vocabulary learning strategies have been extracted from this version). The think-aloud procedure along with semi-structured interview was the last instrument which was used in this study. The think-aloud procedure was done during the treatment, but only once in session two long with semi-structured interview was served as a needs analysis tool and to guide the researcher in planning and shaping the strategy instruction was recorded (TAP 1) and once in session eleven along with semi-structured interview (TAP 2) for identifying any changes in the use of vocabulary learning strategies. The semi-structured interviews were carried out at the same time as the TAPs and the preplanned questions were “How did you understand the unknown words meanings?” “What do you normally do when you do not understand the unknown words meanings?” “Why did you use this strategy?” “What strategy did you use in order to understand the unknown words meanings?” “Why did you use this strategy?” The protocols from TAP 1 and TAP 2 was analyzed to look for instances of vocabulary strategy use according to Oxford's [5] taxonomy of learning strategies.

Procedures: After being sure of homogeneity of students through language proficiency test [21], they were randomly divided into two experimental and control groups. After division, the control group received conventional teaching vocabulary training without any explicit vocabulary learning strategy instruction while the experimental group received vocabulary learning strategy instruction. The treatment sessions took 12 sessions and each session was scheduled to receive 100 minutes of vocabulary strategy instruction. On the first day, the researcher first gave the students in the experimental group an Affixes Table to memorize. Then she gave them an introductory lesson about vocabulary learning. Following the guidelines suggested by several researchers [22, 23], the researcher first talked about the importance of vocabulary knowledge in language learning and discussed the benefits of strategy use, functional and contextualized practice with the strategies, self-evaluation and monitoring of language performance and suggestions for or demonstrations of the transferability of the strategies to new tasks. Table 1 indicates vocabulary learning strategies focused in the present study.

The researcher then modeled the think-aloud protocol several times by reading one passage and reporting what she was thinking of while processing the passage in order to understand the vocabulary meaning. Then the students took turns to think aloud and practice with another passage; each student verbalizing his/her thoughts that how they found the unknown words meaning for a paragraph. After they learned how to think loudly, the researcher gave them the SILL 1 to fulfill in order to find what strategies students use and also to guide the researcher in planning and shaping the strategy
Table 1: Indicates vocabulary learning strategies focused in the present study

<table>
<thead>
<tr>
<th>Parts</th>
<th>Strategies</th>
<th>Vocabulary Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Memory strategies</td>
<td>a) reviewing b) place new words in new sentences.</td>
</tr>
<tr>
<td>B</td>
<td>Cognitive strategy</td>
<td>Analyzing word into its parts (affixes) b) grouping words according to the part of speech c) listing new words along with other words related to it by topic</td>
</tr>
<tr>
<td>C</td>
<td>Compensation strategies</td>
<td>a) guessing from context linguistically b) guessing non-linguistically</td>
</tr>
<tr>
<td>D</td>
<td>Metacognitive strategies</td>
<td>a) monitoring b) evaluating</td>
</tr>
</tbody>
</table>

instruction. The SILL 1 was given to the students in first session. In second session, a new text was given to the students to comprehend and discover the unknown words meaning by using vocabulary strategies for eighty minutes. They were free to ask questions or to look up unknown words in their own dictionaries or the dictionaries provided by the researcher. When students finished answering the questions they were interviewed individually by the researcher in the privacy of the researcher's room and were asked to think aloud on the text and simply tell how/why s/he understood the meanings of the unknown words. The entire session was tape-recorded and the protocols were transcribed verbatim. The transcripts were then coded for instances of vocabulary learning strategy extracted from Oxford's [5] SILL. The objective of these interviews was to gather more specific data about the decisions that the students claimed having made at the moment of the reading the text in order to find the meanings of the unknown words and also for identifying any changes in the use of vocabulary learning strategies.

RESULTS AND DISCUSSION

Results from Post-Test: To determine the differences between the groups in terms of their vocabulary achievement and reading comprehension at the end of the study, independent t-tests were applied to the vocabulary and reading comprehension gain scores together and separately. The results of the post-test showed that the mean scores of the experimental group were significantly different from the control group. In other words, the experimental group outperformed the control group on the post-test (Table 2). The results of the present study have confirmed that vocabulary achievement and reading comprehension could be developed through systematic instruction in language learning strategies. Systematic explicit instruction about language learning strategies helped students of the experimental group to better
Table 2: Result of the t-test from post-test of both groups

<table>
<thead>
<tr>
<th>Test</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t-observed</th>
<th>t-critical</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary and Reading comprehension test</td>
<td>Control</td>
<td>32</td>
<td>25.87</td>
<td>2.58</td>
<td>17.56</td>
<td>2.000</td>
<td>64</td>
</tr>
<tr>
<td>(number of items=40)</td>
<td>Experimental</td>
<td>34</td>
<td>35.17</td>
<td>1.66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary test (number of items=20)</td>
<td>Control</td>
<td>32</td>
<td>10.68</td>
<td>0.47</td>
<td>32.31</td>
<td>2.000</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>34</td>
<td>17.79</td>
<td>1.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading comprehension test (number of</td>
<td>Control</td>
<td>32</td>
<td>15.18</td>
<td>2.24</td>
<td>5.64</td>
<td>2.000</td>
<td>64</td>
</tr>
<tr>
<td>items=20)</td>
<td>Experimental</td>
<td>34</td>
<td>17.38</td>
<td>0.49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

comprehend this new approach and how to apply it to different learning tasks on reading. Vocabulary learning strategy instruction helped the students to know why, when and how to use the strategies. The students stated that being aware of which strategy should be used where and when helped them achieve higher grades in the tests. The post-test results showed that the students in the experimental group started to think metacognitively about the strategies they could use to improve their vocabulary achievement and reading comprehension to become not only better readers, but also autonomous and strategic learners [24-28].

Vocabulary learning strategies not only seem to have contributed to the improvement of students’ vocabulary achievement and reading comprehension but also it improved their confidence, decreased their anxiety, increased their motivation, interest and success in learning English language and consequently, it made students independent and autonomous in learning; these findings are consistent with those of [29-39] that suggests training learners in language learning and strategy-use may give them an active and responsible role in their own learning, help them gain autonomy and become better learners. It can be implied from the results of this study that strategy instruction and practices the experimental group received about how to select the most appropriate vocabulary learning strategy, monitor strategy use, use a combination of strategies, self-testing degree of mastery of the new vocabulary items after meeting the words for the first time, guess the meaning of unknown words and finally evaluating the whole process, contributed to the improvement of students' vocabulary learning and reading comprehension. The findings of this study indicated that vocabulary learning strategy instruction had positive impact on vocabulary achievement and reading comprehension of EFL students. It matched with some studies focused on language earning strategy instruction [18, 39-45] according to which language learning strategy instruction has positive effects on development of skills and components of language such as reading comprehension; while some studies found that strategy instruction do not have a significant effect on reading comprehension [46-49]. For instance, [50] referred one of the reasons for the insignificant differences between the two groups involved in his study to this fact that strategy instruction program- offered at awareness raising level for only a period of two weeks for four blocks-each block lasting 50 minutes- was not sufficient for students to improve and foster the use of the relevant cognitive and metacognitive reading strategies while this study had enough time to practice vocabulary strategies; more ever, students were motivated enough and became aware of the benefits of strategy instruction. These factors and other mentioned factors are those that made this study successful. The results of this study enabled the researcher to see students’ strengths and weaknesses about vocabulary learning. Most of the students indicated that they face problems when they memorize the words. Most of them stated that if they don’t see or use the words in a sentence they can forget it easily, especially multi-part words. This may give the researcher a clue that the majority of the students are visual students. According to [51] ‘just making learners aware of the existence of strategies and exploring the range of available strategies’ (p. 187) would not bring about effective strategy use. Students in the present study were shown explicitly the strategies which they could try to achieve better learning and each strategy was modeled to the students. The students discussed the strategies they found most effective with each other and received help and feedback from the researcher. When they failed to find the meaning of a new word, they tried another strategy, as they were aware of the existence of another strategy which they could fall back on. Thus, the instruction seemed to help them to self-diagnose their learning difficulties, experiment with both familiar and unfamiliar strategies and self-evaluate their performance.

Results from the Strategy Inventory for Language Learning (Sill 1): As you can see in Table 3, the most percentage of strategy use belonged to the memory and metacognitive strategies with 20.583% and 19.11% use
Table 3: The percentage of strategy use in descending order

<table>
<thead>
<tr>
<th>SILL 1</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Memory</td>
</tr>
<tr>
<td>2</td>
<td>Metacognitive</td>
</tr>
<tr>
<td>3</td>
<td>Cognitive</td>
</tr>
<tr>
<td>4</td>
<td>Compensatory</td>
</tr>
</tbody>
</table>

Table 4: The percentage of strategy use in descending order

<table>
<thead>
<tr>
<th>SILL 2</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cognitive</td>
</tr>
<tr>
<td>2</td>
<td>Metacognitive</td>
</tr>
<tr>
<td>3</td>
<td>Memory</td>
</tr>
<tr>
<td>4</td>
<td>Compensatory</td>
</tr>
</tbody>
</table>

Table 5: The frequency and percentage of vocabulary strategies in TAP 1 and TAP 2

<table>
<thead>
<tr>
<th>Strategies</th>
<th>TAP 1</th>
<th>TAP 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>Cognitive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find the meaning of an English word by dividing it into parts that I understand.</td>
<td>18</td>
<td>13.23</td>
<td>71</td>
</tr>
<tr>
<td>I group the words according to the part of speech</td>
<td>5</td>
<td>2.10</td>
<td>139</td>
</tr>
<tr>
<td>I sometimes learn a new word by listing it along with other words related to it by topic.</td>
<td>0</td>
<td>0</td>
<td>105</td>
</tr>
<tr>
<td>I find the meaning of an English word by using a dictionary. *</td>
<td>1180</td>
<td>96.40</td>
<td>495</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>3.97</td>
<td>315</td>
</tr>
<tr>
<td>Compensatory</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To understand unfamiliar English words, I make guesses (linguistically)</td>
<td>16</td>
<td>9.41</td>
<td>71</td>
</tr>
<tr>
<td>To understand unfamiliar English words, I make guesses from context (non-linguistically)</td>
<td>5</td>
<td>1.33</td>
<td>241</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>3.86</td>
<td>312</td>
</tr>
</tbody>
</table>

* Since this strategy was beyond the scope of the study, it was not considered as a cognitive strategy but analyzed separately.

respectively. The findings from SILL 1 are consistent with [52, 53] statements that lower-level students tend to make more use of strategies that involve isolated ways of learning the language with an emphasis on memorization strategies and strategies involved vocabulary learning. [54] in his study found that among language learning strategies that were measured by the SILL, metacognitive strategies stood out to be the most indicative factor in predicting learners’ proficiency. In a detailed study, [55] found that more proficient Iranian EFL learners made more extensive use of metacognitive strategies, followed by Social strategies. The results related to strategy category use approximately resemble those of other similar studies conducted with Asian students. For instance, the reported high use of metacognitive strategies in this study is also endorsed by [16, 55-61] in Asian EFL contexts.

Results from the Strategy Inventory for Language Learning (Sill 2), Taps and Semi-structured Interviews:

When the data according to the SILL 2, reading passages from the first and second TAPs and semi-structured interviews were collated and analyzed, it was observed that, on the whole, students made use of more types of cognitive strategy of dividing word into its parts than others (Tables 4, 5). It should be mentioned that in TAPs no students in order to infer the unknown words meaning used memory and metacognitive strategies.

According to the result of the SILL2, cognitive, metacognitive and memory strategies were used more; while in SILL1 the percentage of strategy use in cognitive strategies was 0. The reason refers to this fact that in SILL1, students were not aware of the strategies but after strategy instruction this percentage increased to 94.11, because the students were instructed on vocabulary learning strategies. According to SILL1 and TAP1, students did not pay attention to the structure aspect of the words in order to guess the unknown word meaning; but after strategy instruction by the researcher and then practices by the students and as the SILL2 and TAP2 shows they gradually improved. The students by practicing on different accounting passages could guess the unknown words meaning by focusing on clues surrounding the unknown words, part of speech, collocations, analyzing the words into its parts and comprehend the passages. [62] said that the various
strategies the readers apply as they process text will influence the depth of their understanding. With regard to the students’ statements, some said that “by sentence-making with new words we can retain more words and remember words and its meaning easier than before”. Some other stated that “by grouping the words according to the part of speech or listing them by topic we can easily learn, memorize and retain more words”. Students were free to move around inside the classroom during the strategy instruction, thus, interacting a lot with each other. This mobility and the dynamic interaction among the students seemed to contribute positively to the classroom atmosphere. In this way students learnt to monitor their learning; they controlled their progress, their mistakes and the way of using and orchestrating strategies; they became almost autonomous in using of the strategies and their motivation increased because they increased confidence in their learning ability in using appropriate strategies. The findings are consistent with those of [14, 32, 33, 63-66] and that training learners in language learning and strategy-use may give them an active and responsible role in their own learning, help them gain autonomy and become better learners. The vocabulary strategy instruction period functioned like a ‘relaxation period’ compared to the relative formality of the regular instruction. In this way, many students indicated that they enjoyed the strategy instruction as it was ‘fun to have a teacher who does not try to teach us anything but waits until we ask him for her help. In all, as the result of post-tests, SILL2 and TAP2 shows, students had high use of cognitive strategies specially the strategy of dividing the word into its parts.

Implications: The findings of this study suggested the importance of including vocabulary learning strategies into language courses in order to provide learners with greater opportunity to make language learning an autonomous process. The focus should be on helping learners to learn how to learn by equipping them with tools they can use after formal education. Thus, it is the teacher’s role to capitalize the use of language learning strategies in their teaching and to find out if it can help students improve their language proficiency. In order to provide the learners with the relevant instruction, teachers themselves should have a good command of strategies; thus, they should be instructed about strategy use and teaching. The strategy instruction can be incorporated into the methodology courses given at the teacher education programs.

REFERENCES


