The Effectiveness of Metacognative Strategy on vocabulary Improvement of Iranian Undergraduate Students

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Abstract – The present study was conducted to find out the effect of Metacognative strategy as a vocabulary learning strategy on reading comprehension skill. To fulfill the purpose of the study, a language proficiency test was administrated to 120 male and female university students who studied in a course other than English as their major in Omidiyeh Islamic Azad University. Ultimately, sixty pre-intermediate students were selected and assigned into two experimental and control groups. The experimental group was taught vocabulary through Metacognative strategy for developing their vocabulary storage in reading comprehension. After ten sessions of treatment, the two groups were given a post-test of an achievement vocabulary test. Data analysis was conducted through samples t-test statistics. It demonstrated that the experimental group who utilized Metacognative vocabulary learning strategies outperformed the control group.

Keywords – **Vocabulary Learning Strategies (VLSs); Direct vocabulary learning Strategies,** Metacognative **Strategy**

1. Introduction

Vocabulary acquisition is an important part of learning that carries over to all parts of a student's academic life, and vocabulary knowledge has been shown to increase comprehension. Because vocabulary knowledge directly affects reading comprehension, students who have difficulty with vocabulary acquisition are placed under an additional burden, especially when required to read texts that are filled with technical words (Flynt & Brozo, 2008). Unfortunately, many students have a lower retention rate for vocabulary words, and need specific strategies to help them increase their overall vocabulary.

Francis and Simpson (2003) believed that one of the first things that teachers need to do to increase vocabulary acquisition is to incorporate oral expression activities. Types of activities include practicing the pronunciation, discussing the characteristics of the word, and discussing the definitions. After the students have practiced oral activities with the words, they can then be asked to create sentences with the confidence that they thoroughly understand the vocabulary words. Teachers should also incorporate non-traditional types of materials for use with the textbooks.

Strategies for improving vocabulary acquisition are still being tested through research. Many schools have implemented programs to help increase vocabulary acquisition. Henkin, Harmon, Pate, and Moorman (2007) stated, "During the past 25 years, research has broadened and deepened our understanding of vocabulary learning and teaching. There is a strong relationship between vocabulary knowledge and reading comprehension, each of which is critical to the development of the other" (p. 5). Many of the programs begun by school systems are vying to tie these two components together.

Learning strategies are defined by O'Malley and Chamot (1990) as "special thoughts or behaviors that individuals use to comprehend, learn, or retain new information" (p.1). Oxford (1994) defines them as "actions, behaviors, steps, or techniques students use, often unconsciously, to improve their progress in apprehending, internalizing, and using the L2" (p.1).

2. Metacognition

Metacognition involves "active monitoring and consequent regulation and orchestration of cognitive process to achieve cognitive goals" (Flavell, 1976, p. 252). Flavell and Wellman (1977), and Flavell (1979) included interpretation of ongoing experience, or simply making judgments about what one knows or does not know to accomplish a task, as other features of metacognition. Along with the notions of active and conscious monitoring, regulation, and orchestration of thought process, Flavell believed that through repeated use of metacognition, it might in time become automatized.

Anderson (2002a, p.1) defines metacognition as "thinking about thinking." As Anderson states, the use of metacognitive strategies ignites one's thinking and can

lead to higher learning and better performance. Furthermore, understanding and controlling cognitive process may be one of the most essential skills that teachers can help second language learners develop.

It should be noted that different metacognitive skills interact with each other. The components are not used in a linear fashion. More than one metacognitive process along with cognitive ones may be working during a learning task (Anderson, 2002b). Therefore, the orchestration of various strategies is a vital component of second language learning in general and vocabulary learning in particular. Allowing learners opportunities to think about and talk about how they combine various strategies facilitates strategy use.

3. The purpose of the study

The purpose of this study is to guide instructors to introduce Metacognative vocabulary learning strategy to learners to improve their vocabulary on language tasks systematically because learners, in EFL contexts, often have problem in comprehending the reading texts because of the weakness of vocabulary knowledge. Vocabulary is generally considered as the basic communication tool, and often labeled as the most problematic area by language teachers (Celik & Toptas, 2010). Therefore, this study was conducted to find out the possible effects of learners' Metacognative vocabulary learning strategy on reading comprehension of pre-intermediate level Iranian university students in an EFL setting.

4. Methodology

4.1 participants

The researcher selected 120 EFL university students (mostly in the second semester) based on non-random judgment sampling. They participated in a homogeneity test adapted from Objective Placement Test (Lesley, et al 2005) as a homogeneity test and sixty students whose scores were one standard deviation above and one standard deviation below the mean (M= 30) were selected. Then they were randomly divided into two experimental and control groups; group A (14 female and 16 male) received Metacognative vocabulary learning strategy while group B (12 female and 18 male) considered as a control group. The age of the participants generally ranged from 19 to 25. Seemingly, they were originally from different regions of the country.

4.2 Procedure

In this study, 120 Iranian university students who study in a course other than English as their major were selected. To make sure of the homogeneity of learners, the researcher used Objective Placement Test as a language proficiency test (Lesleye, et al 2005). Having obtained the scores and the average mean of the scores calculated and sixty learners whose scores were around the mean were selected. Then, they were randomly divided into two experimental and control groups. After the division, the first group was taught vocabulary through Metacognative vocabulary learning strategy while the second group was considered as a control group. In this study, the treatment period lasted for ten sessions. Group A received instruction on Metacognative vocabulary learning strategy. Metacognative strategy used as a treatment to teach vocabulary through giving direct and guided instructions.

5. Data Analysis

As stated before, this study attempted to investigate the role of Metacognative vocabulary learning strategy in developing students' reading comprehension. The results included descriptive data and also the results that will help yield information about any changes in vocabulary learning strategy use in the experimental group. The data obtained through post-test (Table 1) were analyzed (using SPSS 11.5 software) in different steps. The researcher dealt with comparing vocabulary learning strategy regarding, a parametric technique for analyzing the descriptive data. In this way, the study investigated the role of Metacognative vocabulary learning strategy through t-test analysis, in order to find out, whether these strategy influence students' vocabulary knowledge of Iranian EFL university students at the pre-intermediate level of English reading proficiency or not. The results of t-test analysis for the effect of this strategy in reading comprehension as an independent variable statistically indicated mean differences in Table 1.

Table1. Result of the t-test (post-test of both groups)

	Experimental	Control group
number	30	30
range	7.00	11.00
minimum	29.00	24.00
maximum	39.00	38.00
mean	36.5767	31.5433
Std. Deviation	1.45517	2.46688
Independent t-test	-3.425	P=0.002

After the treatment, to find the effectiveness of Metacognative vocabulary learning strategy on reading comprehension both groups took part in a post-test of the vocabulary and reading comprehension test after completing the course. The reliability of the post-test was r = .79 based on KR-21 formula; the vocabulary items in the test were mainly selected from the new lexical items taught and exposed to during the course of instruction. The results of the post-test in the two groups were compared using independent samples t-test statistical procedure, whose result showed that the mean scores of the experimental group (M = 36.57, SD = 1.45) was significantly different from the control group (M = 31.54, SD = 2.46). Also the minimum and maximum score in experimental group is 29 and 39 orderly while in the control group the minimum and maximum score is 24

and 38 orderly. In other words, the experimental group outperformed the control group on the post-test. That is, Metacognative strategy was effective in teaching EFL vocabulary.

Discussion

The results of *t*-tests indicated statistically significant difference between the experimental group (A) and control group (B) in reading comprehension achievement post-test. It indicated that the Metacognative strategy is effective in improving EFL vocabulary storage on reading comprehension achievement of university students at the pre-intermediate level of English. This result can be more approved and confirmed by this evidence that there was a significant difference between experimental group (A) who received Metacognative strategy for developing their vocabulary storage in reading comprehension. Moreover, the mean of experimental group was higher than control group based on the post-test scores.

As it was shown in (table1) the mean scores of the experimental group (M = 36.57, SD = 1.45) was significantly (*t* = 5.553, p< .05) different from the control group (M = 31.54, SD = 2.46). In other words, the experimental group outperformed the control group on the post-test. The findings of this research indicated that using Metaconative vocabulary learning strategy has positive impact on enhancing vocabulary on reading comprehension of EFL students at pre- intermediate level.

Conclusion and implication

The major concern of the present study was to explore the effectiveness of Metacognative vocabulary learning strategy designed to assist students enhance their vocabulary in reading comprehension of the EFL students. The instruction lasted ten weeks. In the course of this time, the researcher (teacher) employed the mentioned strategy and instructed the participants in the experimental group how to use Metaconative strategy in their reading comprehension.

At the end of the course both the experimental and control groups were administered the reading comprehension post- test and the results of the tests were compared to find the effect of training. The findings of this study indicated that Metacognative vocabulary learning strategy had positive impact on reading comprehension of EFL students because based on the results we gained and analyzed (Table1), the researcher can conclude that there is a significant difference between experimental and control group and also according to these results the researcher can claim that Metaconative vocabulary learning strategy had positive impact on students of this study and is effective in proportion to control group.

The teachers should help students in selecting the most appropriate strategy for developing skills. Metaconative strategy because of easy application is suitable and effective in first stages of developing vocabulary of EFL learners and we experienced it in this study.

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