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The Impact of Meta-Cognitive Strategy Training on Vocabulary Enhancement of Efl/Esl Learners

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Abstract

As lots of researches have done in Second Language Learning, some of these researches have demonstrated that not all Strategy-Oriented Instruction studies have been valuable to push the development of interlanguage forward. Therefore, the researchers in this study aim to investigate the impact of meta-cognitive strategy training on vocabulary knowledge improvement of EFL/ESL students. By this means, 52 students at Payame Noor University were selected randomly as the participants of the study. The number of students in each of the control and the experimental group contain 26 participants with the age range from 19 to 28. The Key English Test (KET) as proficiency test for intermediate students was the means of selecting participants as the homogeneous subjects. Then, Vocabulary Levels Test was administered for computing the vocabulary knowledge of the participants as the pre-test first and after the treatment as the post-test. In addition, the meta-cognitive learning strategies dominated the experimental group for vocabulary learning while the control group received the traditional teaching method during 10 sessions. One-way ANOVA was used to analyze the data, and it indicated the beneficial usage of meta-cognitive strategies training in developing the vocabulary knowledge.

Keywords: Strategy-oriented instruction; Meta-cognitive strategies; Vocabulary knowledge; Vocabulary levels test.

1. Introduction

Over the last few decades in the field of education especially language learning, a marked and gradual shift has taken place, the outcome is less emphasis on teachers and teaching yet learners and learning have accepted superior pressure. In other way, it focuses on the learner centered education, in the post-method era; although we are certain that this methodology is surrounded by misconception even in the modern era. As Moradi and Alavinia (2018) has unfilled that despite its preponderance in educational arena since roughly half a century ago, learner-centered education (LCE) seems to still be surrounded by a myriad of misconceptions, delusions and uncertainties. Yet, still more emphasis has placed on helping students to accept more responsibility in their language learning. It is obvious that if the students are explicitly trained to be more aware of language learning strategies and be proficient in the use of them they will be more autonomous and learning will be more facilitated. So, Vocabulary learning is a vital proportion of language learning and carries over to all parts of a learner's academic lifespan, and because vocabulary knowledge directly affects reading comprehension its knowledge will increase their understanding (Flynt and Brozo, 2008). Accordingly, EFL/ESL learners are aware of the extent to which vocabulary knowledge limitations influence their communication abilities since lexical items as the foundation of learning a language are carrying the basic information in which the comprehension and articulation are emerged (Nation, 2001). Some researchers such as Stern (1975) and Rubin (1975) were among the first researchers who presenting the idea of successful language learners. Their ideas in the field of language learning and teaching can definitely help us as teachers to understand more not only about the nature of language learning but also to facilitate learning process for other learners.

Plentiful studies have proved the great effect employed by meta-cognitive strategies both in reading (Baker and Brown, 1984; Carrell et al., 1989; Talbot, 1995) and listening (O' Malley and Chamot, 1985; Schwartz, 1992; Yang, 2004). But, there are a few researches available to examine the relationship between meta-cognitive strategies and vocabulary learning clearly as though, vocabularies are the core of language learning. In the process of the second language learning, mastery of vocabulary plays a significant role and is of crucial importance to the learners. In the past, the students were really passive in this process and they just learn the new vocabulary by rote (rote learning). Yet, in the past decade a host of studies conducted on vocabulary strategies (Fan, 2003; Gu and Johnson, 1996; Schmitt and MaCarthy, 2002), most of these researches emphasized either on the cognitive aspect or focused on the identification and classification of vocabulary strategies.

Numerous researchers such as: Henkin et al. (2007) stated, "During the past 25 years, researches have 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).

In this paper the researcher attempts to tap the relationship between meta-cognitive strategy training and vocabulary learning of EFL/ESL students through ten sessions training program during the semester in Payame Noor University. Basically, the present study is significant in two ways: 1). It endeavors to explore to what extent the EFL/ESL students utilize meta-cognitive strategies for vocabulary learning. 2). It bridges the gap between meta-cognitive strategy training and vocabulary learning of EFL/ESL students.

Having gone through a brief review of literature on the issue, the researcher came to the conclusion that very scant heed has been given to the role training can play in bringing about enhancing vocabulary learning. Thus, aiming to fill in this gap, the researchers in the current study set out to explore the following research question to come up with more cogent results with regard to the effect of meta-cognitive strategy training on better practice of vocabulary improvement. In line with the research objective, the following research question was formulated:

RQ: Does meta-cognitive strategy training promote the vocabulary knowledge scope?

2. Methodology

As stated earlier, the researcher in the present study was after investigating the potential effect of metacognitive-focused training on learners' successful enhancement of vocabulary learning. In so doing, a quasi-experimental design was opted for, in which the experimental group went through pre-testing, treatment and post-testing phases, while in the second group (control group) no training was held as to the underlying tenets of meta-cognitive training strategies.

2.1. Participants

Using convenience sampling procedure, a total 52 EFL students were chosen as the participants of the study. The selected learners were from both genders and their age ranged from 19 to 28. The participating learners were recruited from Payame Noor University (PNU) in Iran. They were Third Year of Bachelor of Art (TYBA). The administration of the Key English Test (KET) as proficiency test for intermediate students was the means of selecting participants as the homogeneous subjects.

2.2. Instrumentation

Key English Test (KET) was utilized as a primary means of data collection in the current study. It was the English language proficiency test that firstly administered to homogenize the participants, and it covers elementary practical English, like understanding simple instructions and phrases, and consists of 30 multiple-choice items needing completion of sentences. The participants who scored between -1 and +1 standard deviation were involved in the study. The latter test was Vocabulary Levels Test (VLT) which is a test to measure the scope of vocabulary knowledge or known as vocabulary size or number of lexis the individual is acquainted to them to some extent. The VLT appears to be practical, more economical, easy to administer, and can be completed by the subjects in a short period of time. In the present study, (VLT version 2) which was previously revised and validated by Schmitt *et al.* (2001) was used. Each level of the test contains 30 items. So, Vygotsky's metaphor of Zone of Proximal Development (ZPD) (1986) with its concomitant notion of scaffolding has been applied as the conceptual framework.

2.3. Procedures

At the outset of the study, 65 English major students selected from PNU as participants. First, a multiple-choice questionnaire (KET) which is a proficiency test was administered to make sure of the participants homogeneity in terms of general language proficiency prior to the treatment. It involved 30 vocabulary items of choosing the synonyms or sentence completion. The scores analysis indicated that some of the registered participants were excluded from the study because they did not respond to the questions completely or were not attending in the examination session. So, the participants were reduced to 52. The selected participants were then grouped into experimental and control groups. In so doing, 26 out of 52 participants were randomly assigned to either experimental or control group. Next, the pre-test which was VLT was administered to both groups. Having run the pre-test, the researcher took charge to serve the experimental group the meta-cognitive vocabulary strategy instruction while the control group was continued conventionally during the course. The treatment duration lasted for 10 sessions during the normal semester of the academic year. On the first phase of the treatment, the researcher distributed a table of affixes which is one of the vital elements of the words to experimental group. Then, an introductory lesson on vocabulary learning and possible strategies (Meta-cognitive strategies) for learning vocabularies was introduced to them, while the second group which was considered as control group follows the traditional vocabulary learning. The Metacognitive strategy treatment was utilized through direct and indirect supervised instructions. The strategies employed are shown in table 1:

Table-1. The strategies were used as treatment

Strategies	Vocabulary Tasks
Memory Strategies	**a)** reviewing **b)** place new words in new sentences **c)**presenting the list of (Affixes) to memorize
Cognitive Strategy	**a)** Analyzing word into its parts (affixes) **b)**grouping words according to the parts of speech **c)** listing new word along with other words related to it by topic
Metacognitive Strategies	**a)** monitoring **b)** evaluating

According to the guidelines suggested by a numerous researchers such as Cohen (1998); Hulstijn (1997) the researcher in the current study, first interconnected and discuss with the learners to make them aware of the importance of lexis knowledge in foreign language learning and reflected the benefits of strategy employment in learning dictions, monitoring of one's own language learning process and suggesting for the expanding of the strategies to new tasks of learning words. The experimental group received training and instructing of how to design their vocabulary learning, selecting the suitable strategy for learning vocabulary among different strategies, and set the precise goals within a limited time period.

In the current research, as for the model proposed by Chamot and O'Malley (1986), the experimental group received the Style- and Strategy-Based Instruction (SSBI). Styles- and strategies-based instruction (SSBI) is a name that has been given to a form of learner-focused language teaching that explicitly combines styles and strategy training activities with everyday classroom language instruction (Cohen and Dörnyei, 2002; Oxford, 2001). Finally, both experimental and control groups were given VLT test as the post-test to observe the progress after the treatment if there was any, and the results of the tests were compared to find the influence of the training.

3. Result and Analysis

To find out whether meta-cognitive training had proven useful in pushing students toward more efficient in vocabulary enhancement, initially the scores of trained and untrained groups were analyzed in terms of normality. Table 2 illustrates the descriptive statistics obtained for pre-test scores.

Table-2. The Descriptive statistics of both groups pre-test

Tests	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Exp.	26	8.85	1.255	.246	8.34	9.35	7	11
Con.	26	9.04	1.038	.204	8.62	9.46	7	11
Total	52	8.94	1.145	.159	8.62	9.26	7	11

To answer the research question of the study, the gathered data were statistically analyzed. In so doing, first the normality of distribution for the scores was investigated. To check the normality assumption, first, one-way ANOVA was conducted on pre-test of both groups' scores. In one-way ANOVA, if the significance level is above .05 it shows that the data are normally distributed. As it is indicated in Table 2, the results of one-way ANOVA revealed that the data was normally distributed. And Table 3, shows the result of the ANOVA for the pre-test and we can see that the (sig. 0.550) in Table 3 indicated that the two groups are equal before treatment.

Table-3. The result of ANOVA for the pre-test of both groups

Tests	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.481	1	.481	.362	.550
Within Groups	66.346	50	1.327		
Total	66.827	51			

And also to answer the research question of the study which dealt with the comparison of the two groups in terms of the impact of Meta-cognitive strategy on vocabulary knowledge development of EFL/ESL learners again one-way ANOVA was run to compare the two groups' scores of the post-test to see if there is any significant differences between the two groups after the treatments applied to increase and develop the knowledge of vocabulary. Table 4 shows the result of the descriptive statistics of post-test for the two groups.

Table-4. The Descriptive statistics of both groups post-test

Tests	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Exp.	26	14.92	1.647	.323	14.26	15.59	11	19
Con.	26	8.85	1.223	.240	8.35	9.34	7	11
Total	52	11.88	3.388	.470	10.94	12.83	7	19

Table-5. The result of ANOVA for the post-test of both groups

Tests	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	480.077	1	480.077	228.107	.000
Within Groups	105.231	50	2.105		
Total	585.308	51			

To make the answer of the research question clear, the collected information were statistically analyzed. In so doing, one-way ANOVA was conducted on post-test's scores of both groups. As it is indicated in Table 5, the results of one-way ANOVA revealed that there are the significant differences between the two groups. And again as it is shown in Table 5, which is the result of the ANOVA for the post-test the (sig. 0.000) indicated that the two groups are completely different after the treatment. So, the analyzed data demonstrated that meta-cognitive strategies instruction influenced positively the learner's awareness of vocabulary learning in the experimental group and the

enhancement of vocabulary knowledge. Results from the descriptive statistics and one way ANOVA also indicated that the experimental group outperformed the control group.

4. Discussion and Conclusion

The main aim of the current study was to examine the effectiveness of vocabulary learning strategy instruction on vocabulary knowledge development among intermediate students. As revealed by the statistical analysis, the vocabulary learning strategy instruction has a significant impact on the EFL students' development of vocabulary knowledge. As it was shown in (table 4) the mean scores of the experimental group (M = 14.92, SD = 1.647) was significantly different from the control group (M = 8.85, SD = 1.223). The findings of this research by comparing the pre-test (sig: .550 shown in Table 3) and post-test (sig: .000 shown in Table 5) indicated that using Meta-cognitive strategy has positive impact on enhancing vocabulary achievement of EFL/ESL learners at intermediate level. In other words, the experimental group outperformed the control group on the post-test. Therefore, the result obtained in the current study is indicative of the key role training plays in successful practice of meta-cognitive strategies. Though, previous researches substantiate the efficacy of metacognitive strategies adoption for enhanced vocabulary learning conditions, no direct evidence could be found by the researchers as to the effectiveness of training for augmenting students' utilizing meta-cognitive strategy training to enhance the domain of vocabulary knowledge. Among the studies that have shown the usefulness of meta-cognitive strategies to enrich vocabulary knowledge for educational betterment and may provide partial support for the findings of the current study, reference can be made to the work done by Chamot and O'Malley (1986). In their research study which was mainly focused and emphasized the advantageous portion of language learning Style- and Strategy-Based Instruction in developing language components of vocabulary knowledge. Furthermore, Askari (2014) highlights the crucial role that meta-cognitive strategy training plays, and the vital positive influence upon the development of the breadth of vocabulary knowledge of Iranian EFL students. Regarding the implementation of meta-cognitive strategy training, (Maki, 2013) maintain that Meta-cognitive vocabulary learning strategy had positive impact on reading comprehension of EFL students. In fact, the adopted procedure in the present study can help the language learners (especially English majors) to develop the vocabulary size through meta-cognitive strategies appliance. Though, moving toward the employment of meta-cognitive strategy in language teaching classrooms is a gradual process, which is in need of sufficient teacher awareness of such methodology and its influence on enhancing vocabulary. In this regard, Kennedy and Kennedy (1996) are of the view that for the real change in educational system and instructional approaches to take effect, the key determining factor is teachers' attitudes in implementation of change. Though, the teacher experiences to employ the meta-cognitive strategies in teaching classrooms will be of crucial importance. After all, as the results of the current study helped reveal, meta-cognitive strategies led to great outperformance of those students who were exposed to metacognitive-oriented training to enhance their vocabulary.

References

Askari, M. I. (2014). The effect of meta-cognitive vocabulary strategy training on the breadth of vocabulary knowledge. *Journal of Academic and Applied Studies,* 4(5): 1-20.

Baker, L. and Brown, A. L. (1984). *Metacognitive skills and reading. Handbook of reading research.* Longman: New York.

Carrell, P. L., Pharis, B. G. and Lierto, J. C. (1989). Metacognitive strategy training for ESL reading. *TESOL Quarterly,* 23(4): 647-78.

Chamot, A. U. and O'Malley, J. M. (1986). *A cognitive academic language learning approach: An ESL content-based curriculum.* National Clearinghouse for BilingualEducation: Wheaton.

Cohen, A. D. (1998). *Strategies in learning and using a second language.* Longman: London.

Cohen, A. D. and Dörnyei, Z., 2002. "Focus on the language learner: Motivation, styles, and strategies." In *N. Schmitt (Ed.), An introduction to applied linguistics. London: Arnold.* pp. 170-90.

Fan, M. Y. (2003). Frequency of use, perceived usefulness, and actual usefulness of second language vocabulary strategies: A study of hong kong learners. *The Modern Language Journal,* 87(2): 222-41.

Flynt, E. S. and Brozo, W. G. (2008). Developing academic language: Got words? *The Reading Teacher,* 61(6): 500-02.

Gu, P. Y. and Johnson, R. K. (1996). Vocabulary learning strategies and language learning outcomes. *Language Learning,* 46(4): 643-49.

Henkin, R., Harmon, J., Pate, E. and Moorman, H. (2007). Reading the signs: Vocabulary. *Voices Fromthe Middle,* 15(1): 5.

Hulstijn, J., 1997. "Mnemonic methods in foreign language vocabulary learning: Theoretical considerations and pedagogical implications." In *J. Coady, and T. Huckin, Second Language Vocabulary Acquisition. Cambridge: Cambridge University Press.* pp. 203-24.

Kennedy, C. and Kennedy, J. (1996). Teacher attitudes and change implementation. *System,* 24(3): 351-60.

Maki, N. (2013). The effectiveness of metacognitive strategy on vocabulary improvement of iranian undergraduate students. *Advances in English Linguistics (AEL),* 2(2): 120-22.

Moradi and Alavinia, P. (2018). Readdressing the implementation of learner-centered education in teacher education programs. *International Journal of English Language and Translation Studies,* 6(4): 24-29.

Nation, P. (2001). *Learning vocabulary in another language.* Cambridge University Press: Cambridge.

O' Malley, J. M. and Chamot, A. U. (1985). Learning strategy applications with students of English as a second language. *TESOL Quarterly,* 19(3): 557-84.

Oxford, R. L. (2001). *Language learning styles and strategies. In m. Celce-murcia (ed.), teaching english as a second or foreign language.* 3rd edn: Heinle and Heinle/Thompson International: Boston. 359-66.

Rubin, J. (1975). What the "good language learner" can teach us. *TESOL Quarterly,* 9(1): 41-51.

Schmitt, N. and MaCarthy, M. (2002). *Vocabulary description, acquisition and pedagogy.* Shanghai Foreign Language Education Press.

Schmitt, N., Schmitt, D. and Clapham, C. (2001). Developing and exploring the behavior of two new versions of the vocabulary levels test. *Language Testing,* 18(1): 55-88.

Schwartz, S. H. (1992). Universals in the content and structure of values: theoretical advances and empirical test in 20 countries. *Advances in Experimental Social Psychology,* 23: 1-65. Available: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.220.3674&rep=rep1&type=pdf

Stern, H. H. (1975). What can we learn from the good language learner? *Canadian Modern Language Review,* 31(4): 304-18.

Talbot, D. C. (1995). *Metacognitive strategy training for reading: developing second language learner's awareness of expository text patterns.* UMI.

Yang, J. (2004). Meta-cognitive strategy training in listening class. *Foreign Language Education,* 4: 65-69.