Ahwaz Journal of Linguistics Studies (AJLS) (WWW.AJLS.IR), ISSN: 2717-2643, 2020, Vol. 1, No. 2

The Effect of Using Metacognitive Vocabulary Learning Strategies on Iranian EFL Learners' Vocabulary Size

Omid Salmanpour & Dr. Omid Tabatabei(Corresponding Author)
English Department, Najafabad Branch, Islamic Azad University, Najafabad, Iran

Abstract
The aim of the present study was to investigate the effect of using metacognitive vocabulary learning strategies on the vocabulary size among a group of intermediate Iranian EFL students. For that purpose, sixty students at Islamic Azad University of Dezful in Iran were randomly selected and assigned in two intact classes as the participants of the study. By considering total sixty participants, randomly thirty participants were assigned to control group and thirty participants to experimental group. Metacognitive Strategy Test (designed by the current researcher) for measuring the percentage in which participants were familiar with metacognitive strategies as the treatment of the study was the first instrument and Vocabulary Levels Test (VLT) as the other instrument for measuring the vocabulary size was administered before (as pre-test) and after (as post-test) the treatment of the study. Both groups worked on the same reading passages and textbooks. In addition, the students in experimental group were also taught in metacognitive vocabulary learning strategies while the students in control group received traditional teaching without any treatment for 12 sessions. The result of one-way ANCOVA indicated that applying metacognitive vocabulary strategies was beneficial in increasing the students' vocabulary size.
Keywords: Strategy-Based Instruction; Metacognitive Vocabulary Learning Strategies; Vocabulary Size; EFL students; Vocabulary Levels Test

1. Introduction

In this regard, after introducing the theoretical and methodical assumptions related to this study, the major issues bounded with vocabulary learning in general, vocabulary learning strategies and the notion of vocabulary size will be stated. Afterwards, those characteristics which make this study significant from other relevant studies in this field will be explained briefly. Based on the pervious mentioned background, a research question is raised which is addressed in the following chapters. Then the hypothesis will be discussed lack or existence of the effect of metacognitive vocabulary learning strategies on learners' vocabulary size. After that, key terms with a brief definitions of each one related to the study will be covered. At last, limitations and delimitations related to the study will be mentioned.

2. Background of the Study

The knowledge of vocabulary is the backbone of language learning. All skills related to language learning directly and indirectly are interconnected with vocabulary knowledge (Nation, 2001). Vocabulary plays an essential role in communication than the other components of language. Obviously, the lack of vocabulary used in routine conversation and communication is the most common source and origin of students' incapacity to express what they want to say and write during their communication activities. It is supposed that introducing relevant vocabulary is prior to any other communication activity. Vocabulary or lexical item, as Chastain (1988) holds, plays a more important role than the other components of language. Without it, language would no longer exist. In the history of language teaching a little care was taken to the "vocabulary learning". It was wrongly assumed that learning and teaching vocabulary is not as important as other issues in language learning. Some scholars Mior and paul Nation (2008) directly stated their idea of less necessity of vocabulary learning among other aspects of language learning. This idea was

dominant during that time till gradually linguists proved the significant value of vocabulary in communication and certain interactions. Nowadays the importance of this issue arrived to this domain that Wilkins (1972) claimed that without grammar very little can be conveyed, but without vocabulary nothing can be conveyed. According to Hatch (1983), "basic communicative competence is largely concerned with the strategies the learners use to solicit the vocabulary they need in order to get meaning across". It is being a long time that teaching vocabulary considered as memorizing some list of new words that most of the learners have to do their best in a very short period of time and it is unfortunately rarely seen that a teacher advises students to guess the word, paraphrase, or focus on synonyms and antonyms (M. Hashemi, 2011). As mentioned above, paraphrasing, guessing and etc. can be very effective in vocabulary learning (Finochairo, 1973: p 122). According to Pulston (1976), the neglected area of all language teaching, with no doubt is vocabulary learning. All in all for having a better job, better pay and eventually a better life, we need more and more vocabulary (Saif, 1995).

Vocabulary is now a current focus in ESL pedagogy and research and has been increasingly recognized as essential to language use because inadequate vocabulary can lead to the learners' difficulty in language reception and production (Wei, 2007).Also Vocabulary knowledge is important because it encompasses all the words we must know to access our background knowledge, express our ideas, communicate effectively, and learn about new concepts.

However, it is useless if the students learn a lot of words or possess a large number of vocabularies but they can't remember or retain in their long-term memories. Wei (2007) stated that nowadays long-term retention has received wide attention as one of the greatest problems in learning new words. Quinn and Irving (1997) mentioned that the hardest way to learn the new words is to try to memorize a list of unrelated words and their meanings. The students need not only learn a lot of words, but to remember them. Unlike the learning of grammar which is essentially a rule-based system, vocabulary knowledge is largely a question of accumulating individual item. The important point is that the students must be able to store and retrieve the vocabularies when they read for comprehension (Thornbury, 2008). Similarly, the inability to recall the known words adversely affects not only reading comprehension but also spoken and written discourse (Wei, 2007). Therefore, the problem of remembering a large number of vocabularies is common for the English learners around the world.

Having inadequate vocabulary hampers learners' reading comprehension in a way that makes it more likely that the learners will face difficulties in the path of academic achievement. As such, vocabulary learning and teaching is a central activity in the L2 classroom. One way in which vocabulary learning can be fostered is through the use of learning strategies. These strategies are consciously or unconsciously learned techniques for processing information in order to enhance learning, comprehension and retention (O'Malley &Chamot, 1990).

In order to investigate learning vocabulary, applied by EFL learners, many different studies around this issue is done so far. Naiman, Frohlich, and Todesco (1975) made a list of strategies used by successful L2 learners, adding that they learn to think in the language and address the affective aspects of language acquisition as well.

O'Malley and Chamot (1990), for instance, have divided the strategies into three main branches: cognitive, metacognitive, and socio-affective, each of which includes lots of sub-strategies such as rehearsal, organization, summarizing, deducing, and imagery. On the other hand, Oxford (1990a) has proposed a more comprehensive model in which six categories, classified into two groups of direct and indirect exist. The direct strategies include memory, cognitive, and compensation while indirect strategies include metacognitive,

affective, and social. As Oxford (1990b) mentions, the social and affective strategies are found less often in L2 research. This is, perhaps, because these behaviors are not studied frequently by L2 researchers, and because learners are not familiar with paying attention to their own feelings and social relationships as part of the L2 learning process. According to O'Malley and Chamot (1990), cognitive (e.g., translating, analyzing) and metacognitive (e.g., planning, organizing) strategies are often used together, supporting each other. In the present study first Metacognitive strategies will come in focus and then their possible effect or effects on Iranian EFL learners' vocabulary size will be investigated.

3. Research Methodology

The sample drawn from the population must be representative so as the researcher is allowed to make inferences or generalization from sample statistics to population (Maleske, 1995).In this way, 60 male and female subjects who were studying in the second semester of Islamic Azad university of Dezful were invited randomly to take part in this study. They were all native speakers of Persian. Their age range varied from 18 to 24. The average age of the participant was 20.83. They had already passed their second semester. The participants were randomly assigned to two classes and were regarded as intermediate level of language proficiency. One of the classes was randomly selected as the experimental group and the other class as control group. The number of the students in both groups of experimental and control group were 30. After the selection of the participants, the PET was administered to the participants of the study. The purpose of the administration of the PET test was to ensure the homogeneity of the students in terms of general language proficiency prior to the treatment. The result of an independent sample T-test for the mean score of the PET test for both groups (Table 1) indicated that the scores of the two groups were not statistically different.

Table 1: Independent sample t-test for pet score

Group	N	Mean	Std. Deviation	t*	Sig
Experimental	30	49.33	5.50	0.429	0.67
Control	30	48.66	6.49		

3.1. Instruments

The following instruments were used by the researcher:

3.3.1. Preliminary English Test (PET)

A retired version of PET exam (2004), as an internationally valid proficiency test, was utilized in this study as a measure of general language proficiency of the participants of this study. Based on the PET Handbook (2004), the test is developed to assess the use of language in real life. PET is based on the communicative approach to learning English while considering the need for accuracy. As for content, the test requires understanding public notices and signs; reading and understanding of short written texts incorporating factual information; understanding of grammar as utilized to express language notions such as time, space, possession, etc. The reliability of the test as estimated against Kudar-Richardson Formula (KR-21) turned out to be 0.84.

4. Statistical Analysis

In order to investigate the aims of the study, the collected data were computed by means of SPSS package. In the following section the analysis of the results of the current study will be discussed in details.

4.1 Inferential statistics

In order 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, one-sample Kolmogorov-Smirnov (K-S) test was conducted on both pre-test and post-test scores. In one-sample Kolmogorov-Smirnov (K-S) test, if the significance level is larger than .05, it shows that the data are normally distributed. As it is indicated in Table 2, the results of one-sample K-S test revealed that the data was normally distributed. Table 2 indicates the normal distribution of data in the present study.

Table 2: Results of one-sample Kolmogorov-Smirnov (K-S) test for showing Normal distribution

Sig. level	Z -Scores	Variable
0/879	0/589	Vocabulary size

Results of the test indicates that data in all levels is normally distributed. Because all calculated Z-scoes of all variables are not significant in level $P \leq 05/0$. In order to answer the research question of the study which dealt with the comparison of the two groups in terms of breadth of the vocabulary knowledge, a one way ANCOVA was run. According to Pallant (2007), ANCOVA can be used when you have a pre-test/post-test design (e.g. comparing the impact of two different interventions, taking before and after measures for each group). The scores on the pre-test are treated as a covariate to 'control' for pre-existing differences between the groups.

For the use of ANCOVA, one important assumption which is the homogeneity of regression slopes must be met first. This assumption concerns the relationship between the covariate and the dependent variable for each of the groups (Pallant, 2007). What should be checked is that there should be no interaction between the covariate and the treatment or experimental manipulation. Table 3 indicates that this assumption has not been violated; If the Sig. level for the interaction is less than or equal to .05, the interaction is statistically significant, indicating that we have violated the assumption. As the table indicates the Sig. level for group pretest is.083 which suggests that this assumption has not been violated. Then, a one-way between-group analysis of covariance was run to investigate the effectiveness of the intervention which was meta-cognitive vocabulary strategy training on the breadth of the vocabulary knowledge of Iranian EFL students. The independent variable was meta-cognitive vocabulary strategy training, and the dependent variable consisted of scores on VLT administered after the treatment. Participants' scores on the pre-test administration of the VLT were used as the covariate in this analysis.

In table 3, the mean and standard deviation of the pre-test and post-test variable with regard to the control and experimental groups will be presented.

Table 3. Mean and Standard deviation of pre test and post test

Post test		Pre test		Groups
Sta. Deviation	Mean	Sta. Deviation	Mean	
1/324	78/30	/4518	60/05	Experimental group
1/674	70/30	/7717	66/62	Control group

Results of the table shows that the average scores in the experimental group than the control group for breadth of vocabulary was noticeably increased. As discussed before for comparison of two groups performance in vocabulary size by considering the homogeneity

of both control and experimental group and also to decrease the level of other effective factors on participants' vocabulary size, One-way ANCOVA was used in this study.
To search for the same assumption variances (Homogeneity of variance) in the groups studied is that of default by analysis of covariance Levene test (Levene Test) were used, the results of which are presented in the following Table 4.

Table 4: Levene test for evaluating the assumption of "homogeneity of variance"

Sig. level	df2	df1	F	Dependent Variable
0/094	59	1	2/88	Post test

The results of this test indicate that the amount of "F" is not significant and the assumption of homogeneity of variance is established. The results of univariate analysis of covariance between-group effects (Between- subjects Effects) by removing the effect of pre-test and post-test shows that the mean of two experimental and control groups in post test scores ($F = 29/87,\ , p \le 0/01, \eta = 0/344$) are of significant differences. And by considering pointed averages in Table 2, it is indicated that these differences are more in post test in experimental group. And by respect to Cohen criterion (1988), this effect is more than mediocre level. The results of the table indicates using metacognitive vocabulary learning has a significant effect on learning vocabulary and those students who were using metacognitive strategies in language learning in contrast with control group, experience a better learning.These results established the significant effects on teaching metacognitive vocabulary learning strategies among Iranian EFL learners.

Table 5: The univarient analysis of one-way ANCOVA on pretest and post test scores by considering control and experimental group as dependent variable.

Effect amount (Etha square)	Sig.	F	Mean Square	D F	Sum of square	Source
0/691	0/000	127/51	8427/67	1	8427/67	Pre test
0/344	0/000	29/87	1974/65	1	1974/65	group
			66/09	57	3767/15	error
				60	344165/00	total

Figure 4 also shows the effectiveness of learning vocabulary by using metacognitive strategies on vocabulary size of experimental group in contrast with the control group.

The finding of this research revealed the inevitable and significant effect of using metacognitive vocabulary learning strategies on Iranian EFL learners. However, many scholars have focused on using metacognitive learning strategies. For instance, According to results from three landmark studies on L2 vocabulary acquisition conducted in the 1980s by Cohen and Aphek (1981), O'Malley et al. (1985) and Ahmed (1989), researchers developed some hypotheses on the VLS most commonly used by L2 learners. These authors argued that memorization, dictionary use, note-taking, and visual and oral repetition are the most common learning strategies among L2 learners. The results of these studies also support the idea that many beginning-level L2 learners prefer mechanical, less cognitively-demanding VLS over more complex meta-cognitive ones (Schmitt, 1997). These studies also led to more systematic research into VLS, although questions still remain today over which type of VLS, or combination of such strategies, are more effective in acquiring a large L2 vocabulary (Takač, 2008).

Many other Researches show that metacognitive skills can be taught to students to improve their learning (Nietfeld & Shraw, 2002; Thiede, Anderson, & Therriault, 2003). They believed that constructing understanding requires both cognitive and metacognitive elements. Learners "construct knowledge" using cognitive strategies and they guide, regulate, and evaluate their learning using metacognitive strategies. It is through this "thinking about thinking," this use of metacognitive strategies, that real learning occurs. As students become more skilled at using metacognitive strategies, they gain confidence and become more independent as learners.

Stoffer (1995) carried out a large-scale vocabulary-learning study using Russian, Japanese, German, and Spanish FL students at a large university in the United States. Stoffer designed a questionnaire—the Vocabulary Learning Strategy Inventory (VOLSI)—to determine the most commonly used VLS among the participants. The VOLSI consisted of 53 strategies grouped into nine categories: 1) strategies involving authentic language use, 2) strategies involving creative activities, 3) strategies used for self-motivation, 4) strategies used to create mental linkages, 5) memory strategies, 6(visual and auditory strategies, 7) strategies involving physical action, 8) strategies used to overcome anxiety, and 9) strategies used to organize words. Among the findings in Stoffer's study was the fact that metacognitive strategies used to create mental linkages were the most frequently used type of cognitive and metacognitive strategies. Students who score high in this factor were the ones who used strategies such as linking L2 words to their native language (either by sound or by spelling), learning words group in related topics, linking new words to already known concepts, or using natural associations (opposites). Another interesting finding was the fact that experienced language learners, those who had previously studied a FL, used significantly more strategies than novice FL learners, those learning a FL for the first time. Stoffer also found that students learning a language more lexically distant from English (such as Russian and Japanese) use VLS more frequently than those who were learning a language less distant such as Spanish.

Many other researchers focused on the notion of Metacognition and metacognitive strategies as an inevitable way to facilitate learning. Metacognition enables students to benefit from instruction (Carr, Kurtz, Schneider, Turner & Borkowski, 1989; Van Zile-Tamsen, 1996) and influences the use and maintenance of cognitive strategies. While there are several approaches to metacognitive instruction, the most effective involve providing the learner with both knowledge of cognitive processes and strategies (to be used as metacognitive knowledge), and experience or practice in using both cognitive and metacognitive strategies and evaluating the outcomes of their efforts (develops metacognitive regulation).

Chamot (1987) found that high school ESL learners reported more strategy use for vocabulary learning than for any other language learning activity, including listening comprehension, oral presentation, and social communication. This might be due to the relatively discrete nature of vocabulary learning compared to more integrated language activities, like giving oral presentations, making it easier to apply strategies effectively.

Among many other researchers we also have some idea of which vocabulary strategies are most commonly used. In a longitudinal experiment, Cohen and Aphek (1981) found that most students simply tried to memorize the words which they did not know. Ahmed (1989) described different types of learners and found that most took notes on vocabulary, or wrote notes in the margins of their books. O'Malley et al. (1985), found that repetition was the most commonly mentioned strategy, with strategies requiring more active manipulation of information (imagery, inference, Keyword Method) being much less frequent. So it seems that more mechanical strategies are often favoured over more complex ones.

Nation (1982) surveyed research into word lists, and concluded they are an effective way for learning a great deal of vocabulary in a short time. Even rote repetition can be effective if students are accustomed to using it (O'Malley and Chamot, 1990). If a generalization can be made, shallower activities may be more suitable for beginners, because they contain less material which may only distract a novice, while intermediate or advanced learners can benefit from the context usually included in deeper activities (Cohen and Aphek, 1981).
O'Malley and Chamot (1990) found that Hispanics who had strategy training improved their vocabulary scores compared to the Hispanic control group, but Asians in the strategy training groups (who resisted training) performed worse than the Asian control group who used their familiar rote repetition strategy. In addition, a study by Schmitt et al. (in press) showed that learners from different culture groups sometimes have quite different opinions about the usefulness of various vocabulary learning strategies. Language proficiency may play an even greater role in determining a vocabulary strategy's effectiveness. For example, word lists proved better for beginning students, but more advanced students benefitted more from contextualized words (Cohen and Aphek, 1981). Cohen and Aphek (1980) found that if students were more proficient initially, they were better able to use associations in recall tasks.

5. The Study in One Glance

Learning vocabulary among many other components of language learning is of great importance. It can be reckoned as the backbone of language learning that without which all other aspects of language seems incomplete and the purposeful communications would not occur. Many different studies have been proposed around the issue of vocabulary learning. In order to discuss vocabulary learning and teaching, the first issue which popped into any researcher's head would be vocabulary learning strategies (VLS). Vocabulary learning strategies are those strategies method and techniques which learners and instructors apply in order to facilitate one's learning.

The main strategies which are applied by learners can be summarized as social, memory, cognitive and finally metacognitive strategies. All above mentioned strategies had been discussed in detail in chapter 2 of this study. Among all strategies applied by learners and teachers, this study aims put its emphasis on metacognitive vocabulary strategies. This study tries to investigate whether using metacognitive strategies affects on Iranian EFL learners vocabulary size or not. For this aim, the researcher administered VLT test to test learners' vocabulary size after teaching metacognitive strategies to experimental group of study. The other group or control group had been taught by regular method and completely without metacognitive strategies.

Based on aforementioned ideas about learning metacognitive strategies and its possible effects on learners' vocabulary size the following null hypothesis was formulated:
H0: Using metacognitive vocabulary learning strategies has no effect on Iranian EFL learners' vocabulary size?

In order to investigate the above mentioned hypothesis 60 participants were randomly invited to the study. All participants were in the second semester at Islamic Azad university of Dezful. They were both male and female and their age ranged between18-23. What follows is a brief description of the steps taken for data collection:
First of all, the students of two intact classes of English translation major at the Islamic Azad University of Dezful were selected randomly as the participants of the study. Then the PET test was administered to the participants of the study. The purpose of the administration of the PET test was to ensure the homogeneity of the students in terms of general language proficiency prior to the treatment. The result of an independent sample T-test for the mean score of the PET test for both groups indicated that the scores of the two groups were not

statistically different. After that the standard metacognitive strategies test was administered between all participants to see if or to what extend participants were familiar with considered metacognitive strategies. Based of self reports from students the researcher recognized that these strategies were in dark side of participants, it means they almost didn't know anything about these strategies. Therefore these strategies were chosen as the treatments for the study. Then the VLT was administered to two groups as the pre-test of the study. After the administration of the pre-test, the control group was taught conventionally without any meta-cognitive vocabulary strategy training while the experimental group received meta-cognitive vocabulary strategy instruction.

According to the analyzed data, it was concluded that using metacognitive strategies has a significant effect on Iranian learners' vocabulary size and the above mentioned hypothesis was rejected.

Many researchers' studies support this result. They believe that metacognitive skills can be taught to students to improve their learning (Nietfeld & Shraw, 2002; Thiede, Anderson, & Therriault, 2003). They believed that constructing understanding requires both cognitive and metacognitive elements. Learners "construct knowledge" using cognitive strategies and they guide, regulate, and evaluate their learning using metacognitive strategies. It is through this "thinking about thinking," this use of metacognitive strategies, that real learning occurs. As students become more skilled at using metacognitive strategies, they gain confidence and become more independent as learners.

Stoffer (1995) carried out a large-scale vocabulary-learning study using Russian, Japanese, German, and Spanish FL students at a large university in the United States.

Chamot (1987) found that high school ESL learners reported more strategy use for vocabulary learning than for any other language learning activity, including listening comprehension, oral presentation, and social communication. This might be due to the relatively discrete nature of vocabulary learning compared to more integrated language activities, like giving oral presentations, making it easier to apply strategies effectively.

Among many other researchers we also have some idea of which vocabulary strategies are most commonly used. In a longitudinal experiment, Cohen and Aphek (1981) found that most students simply tried to memorize the words which they did not know. Ahmed (1989) described different types of learners and found that most took notes on vocabulary, or wrote notes in the margins of their books. O'Malley et al. (1985), found that repetition was the most commonly mentioned strategy, with strategies requiring more active manipulation of information (imagery, inference, Keyword Method) being much less frequent. So it seems that more mechanical strategies are often favoured over more complex ones.

Nation (1982) surveyed research into word lists, and concluded they are an effective way for learning a great deal of vocabulary in a short time. Even rote repetition can be effective if students are accustomed to using it (O'Malley and Chamot, 1990). If a generalization can be made, shallower activities may be more suitable for beginners, because they contain less material which may only distract a novice, while intermediate or advanced learners can benefit from the context usually included in deeper activities (Cohen and Aphek, 1981).

O'Malley and Chamot (1990) found that Hispanics who had strategy training improved their vocabulary scores compared to the Hispanic control group, but Asians in the strategy training groups (who resisted training) performed worse than the Asian control group who used their familiar rote repetition strategy. In addition, a study by Schmitt et al. (in press) showed that learners from different culture groups sometimes have quite different opinions about the usefulness of various vocabulary learning strategies. Language proficiency may play an even greater role in determining a vocabulary strategy's effectiveness. For example, word lists proved better for beginning students, but more advanced students benefitted more from

contextualized words (Cohen and Aphek, 1981). Cohen and Aphek (1980) found that if students were more proficient initially, they were better able to use associations in recall tasks.

6. Conclusion

Based on the findings of the present study , using metacognitive vocabulary learning strategies can affect learners' vocabulary size. In other words language learners are able to enhance the breath of their vocabulary by applying metacognitive method and trainings. By using these strategies the needs of learners to the teacher will be decreased and consequently they can be reckoning as independent learners. In so doing, learners will be taught to think about their thinking. They monitor what they have learnt and at the end they evaluate their own procedure.

The contact heat-transfer coefficient between the work-piece and the roll is set as 23 kW/(m^2°C). The initial temperature of the work-piece, the ambient temperature and roll temperature is set as 860 °C, 20 °C and 200 °C, respectively. The conversion factor from plastic work to heat was set as 0.9 [8] and [9]. 3-D thermo-mechanical coupled elasto-plastic heat capacity and thermal expanding coefficient at different temperature were directly input on the software windows, and the thermo-physical parameters at high temperature can be extrapolated based on.

The contact heat-transfer coefficient between the work-piece and the roll is set as 23 kW/(m^2°C). The initial temperature of the work-piece, the ambient temperature and roll temperature is set as 860 °C, 20 °C and 200 °C, respectively. The conversion factor from plastic work to heat was set as 0.9 [8] and [9]. 3-D thermo-mechanical coupled elasto-plastic heat capacity and thermal expanding coefficient at different temperature were directly input on the software windows, and the thermo-physical parameters at high temperature can be extrapolated based on.

Expanding coefficient at different temperature were directly input on the software windows, and the thermo-physical parameters at high temperature can be.

References

Ambridge, B., & Lieven, E.V.M. (2011). Language Acquisition: Contrasting theoretical approaches. Cambridge: Cambridge University Press.

Anderson, J. C. (2000). Assessing reading. Cambridge:Cambridge University Press.

Atay, D. & C. Ozbulgan, (2007). Memory Strategy Instruction, Contextual Learning and ESP Vocabulary Recall. English for Specific Purposes, 26, 39-51.

Barcroft, J. (2009). Strategies and performance in intentional L2 vocabulary learning.Language Awareness, 18(1), 74-89.

Bogaards, P., Laufer, B. (2004). Vocabulary in a Second Language. John Benjamins Publishing Company, Amsterdam.

Borer, L. (2007). Depth of processing in private and social speech: Its role in the retention of word knowledge by adult EAP learners. Canadian Modern Language Review, 64(2), 269-295.

Cameron, L. (2001). Teaching languages to young learners. Cambridge, UK: Cambridge University Press.

Carrell, P.L., Pharis, B.G. &Liberto, J.C. (1989).Metacognitive strategy training for ESL reading.TESOL Quarterly, 23, 647-678.

Catalán, R. (2003). Sex differences in L2 vocabulary learning strategies. International Journal of Applied Linguistics, 13(1), 54-77.

Celce- Murcia, M. (2001). Teaching English as second or foreign language. New York: Newsbury House Publishers.

Chapelle, C. (1994). Are C-tests valid measures for L2 vocabulary research? Second Language Research, 10, 157-187.

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

Coady, J. (1997). L2 Vocabulary Acquisition through Extensive Reading. In Coady, J. and Huckin, T., editors, Second Language Vocabulary Acquisition, Cambridge: Cambridge University Press,

Cohen, A.D. (1998). Strategies in Learning and Using a Second Language.Longman, London.

Cohen, A. D. (1990). Language Learning: Insights for Learners, Teachers and Researchers. New York: Newbury House/ Harper Row.

Cohen, A., &Aphek, E. (1981).Easifying second language learning.Studies in Second Language Acquisition, 3(2), 221-236.

Cohen, A., &Macaro, E. (2007). Language Learner Strategies: Thirty years of research and practice. Oxford: Oxford University Press.

Cohen, A. D., Weaver, S. F., & Li, T. (1998).The impact of strategic-based instruction on speaking a foreign language.In A. Cohen.Strategies in learning and using a second language (pp. 107-56). London: Longman.

Chamot, A., & O'Malley, M. (1994). The CALLA Handbook: Implementing the Cognitive Academic Language Learning Approach. Reading, MA: Addison Wesley.

Chamot, A., & O'Malley, M. (1996). Implementing the cognitive academic language learning approach (CALLA). In R. Oxford (Ed.), Language Learning Strategies Around the World: Cross-cultural Perspectives (pp. 167-173). Honolulu: University of Hawai'i, Second Language Teaching and Curriculum Centre.

Eslami-Rasekh, Z., and R. Ranjbari (2003).Metacognitive strategy training for vocabulary learning.Tesl EJ, 7(2), 5-15.