

# The Relationship between Self-Efficacy and Self-Regulation in Vocabulary Acquisition of Iranian EFL Learners

Samaneh Haji Hassan Hamedani

*Department of EFL, Mazandaran Science and Research University*

## **Abstract**

This study investigated the relationship between self-efficacy and self-regulation in vocabulary acquisition with Iranian EFL learners. To answer the objective of the study, two questionnaires of self-efficacy and self-regulation capacity in vocabulary acquisition (SRCvoc) and a Vocabulary Level Test (VLT) were used as the information-gathering instruments. First, the VLT was administered to a group of 132 intermediate university students to homogenize them in term of their vocabulary knowledge. Then the Self-efficacy and SRCvoc questionnaires were administered to the selected participants to specify self-efficacy belief and self-regulation in vocabulary acquisition. Finally, some statistical analyses were conducted. The results show that there is a significant relationship between self-efficacy and self-regulation in vocabulary acquisition.

**Keywords: Self-Efficacy; Self-Regulation; Vocabulary Acquisition**

## **1. Introduction**

First appearance of every language is vocabulary and it plays crucial rules in expressing feeling and ideas to others through communication. In Iranian EFL educational centers, vocabulary is viewed as a complex of form and meaning. Thus, memorizing the form-meaning association is considered as vocabulary learning. As a result, many students complains about the difficulty of memorizing new words and they can't find an appropriate way to enlarge their small vocabulary which greatly affects English learning for both purposes of daily oral communication and various types of reading. It is of great interest to find what motivate learners to tackle with difficulty of the vocabulary learning. Regarding recognition of the learner as an active participant in the second language acquisition (SLA) process in Cognitive Theory, learner self-directed variables have been a focus of SLA research. Among them are language learning beliefs and self-regulation. Therefore, the main purpose of study was to find the relationship between self-efficacy and self-regulation in vocabulary acquisition of Iranian EFL learners.

### **1.1. Vocabulary**

Despite many studies about vocabulary acquisition, scholars did not reach at the same definition of "what's the vocabulary". Generally speaking; vocabulary is the knowledge of words and word meaning. Thornburry & Harmer (2002) states that "Knowing the meaning of a word is not just knowing its dictionary meaning (or meanings) - it also means knowing the words commonly associated with it (its collocations) as well as its connotation, including its register and its cultural accretions. It is clear enough that success of ES/FL learners greatly depend on vocabulary size as it is directly related to the ability to use English in various ways. So learners need to acquire a large enough vocabulary to reach what is often referred to in the literature as the "lexical threshold" (Laufer, 1997, p. 31). Nation (2001) has suggested 2,000 word families for lexical threshold. He says that, "These 2,000 words are used so often that they make up about 87% of the running words in formal written texts and more than 95% of the words in informal spoken texts". Learners with 3000 word families begin reading authentic texts and by acquiring 5000-9000 word families they independently read authentic texts while 10000 word families allow them to use most language. Also, acquiring academic words is necessary for learners to become academically successful. Moreover, how many words learners need to know is a personal matter based on their needs, knowing 5000 words, for example, is crucial for learners aiming to pass Cambridge First Certificate (FCE).

### **1.2. Self-Efficacy and Self-Regulation in Vocabulary Acquisition**

According to the many studies, to retain vocabulary better, we need to take psychological aspects and strategies into consideration. Park (1995) defines learning strategies as the "mental activities that people use when they study to help themselves acquire, organize, or remember incoming knowledge more efficiently" (p. 35). It indicates the fact that how much learners involvement in processing of new words be more, they retain words more readily. So, learners need to use vocabulary learning strategies on their own in order to achieve vocabulary inside and outside of the classroom over the long run. Self-regulation refers to the degree to which individuals become metacognitively, motivationally, and behaviorally active participants in their own learning processes (Zimmerman, 1998). In social cognitive theory, self-regulation is viewed as entailing at least four components: goal setting, self-observation, self-judgment, and self-reaction (Bandura, 1986; Schunk, 1986) in three phases of forethought, performance and self-reflection. Goal-setting has been defined as deciding on specific outcomes of learning or performance (Locke & Latham, 1990), such as vocabulary acquisition. Through self-regulation phases, Goal setting in forethought phase is considered as the most initial and important factor as self-regulated learners compare their present performance against their goals. Self-observation /self-monitoring is a performance control process that involves selectively attending to particular aspects of one's behavior or performance (Schunk, 1994; Zimmerman, 1995). To state briefly, learners monitor and

control their own performance and environment by implementing of selected strategies to acquire new vocabulary as they manage time. Self-judgment in self-reflection phase serve as a point of reference from which to continue progress toward the chosen goal (Bandura, 1986). In this phase, learners evaluate and judge their progress in vocabulary acquisition against their goals. If they appraise themselves good at vocabulary learning, they will continue the task. While in the case of dissatisfaction, they themselves react to their shortcoming and try to remedy their performance by asking for help or gathering more information about vocabulary acquisition. According to Schunk (1994) "the belief that one is making progress, along with the anticipated satisfaction of goal accomplishment, enhances self-efficacy and sustains motivation". Also, learners' self-efficacy as a one of motivational constructs affects the implementation of strategies in all academic tasks. Bandura (1997a) defines academic self-efficacy as "personal judgment of one's capabilities to organize and execute course of action to attain designated type of educational performance". According to Zimmerman (1995) beliefs of personal capabilities affect the type of goals that individuals select and their commitment to them. That is, efficacious learners set more challenging goals and persist in vocabulary acquisition when they face problems. But, before students can engage in academic pursuits to attain their goals, they must learn methods that are appropriate for a particular task within a specific context (Zimmerman, 2000). It requires motivated learners to learn and use personalized strategies while they are monitoring their performance to judge their progress. As a result, learners with high self-efficacy are more flexible to react to their probable shortcoming of vocabulary acquisition to reach their goals.

## **2. Method**

### **2.1. Design**

In the present study, the design is ex-post facto, due to the fact that the researcher does not have control over selection and manipulation of independent variable. Also, it is a survey study as well as quantitative One. The information about individuals was gathered through administration of VLT and two self-rating questionnaires.

### **2.2. Participants**

The present study is conducted with a sample of 132 intermediate male, and female students from Sari and Karaj Islamic Azad universities. They are majoring in English translation and English literature who answered a Vocabulary Levels Test and self-efficacy and SRCvoc questionnaires. Considering the normal distribution of the subjects' scores on the VLT, 40 men and 62 female whose scores were between one standard deviation above and below the mean were selected for the purpose of this study.

### **2.3. Instruments**

#### **2.3.1. Vocabulary Levels Test (VLT)**

The VLT is designed to give an estimate of vocabulary size for ES/FL learners of general or academic English. The test consisted 150 items which every 3 items fall into a cluster that on the whole samples 30 items at 5 levels. In addition, there is a section for academic vocabulary. The reliability indices (cronbach's alpha) for all levels sections according to the designers (i.e., Clapham, Schmitt& Schmitt, 2001) are all above 0.90 ranging from 0.92 for 2000 level to 0.96 for Academic Level. The level test is valid in the sense that the Levels distinguish between different proficiency groups. In terms of practicality, the Levels Test enjoys high rate of usability. Having referred to Clapham, Schmitt and Schmitt (2000), previous studies show the levels Test can be completed in a reasonable amount of time (average 31 minutes). It is easy and quick to score, needs no special equipment and gives a more complete picture of a learner's Vocabulary than most other tests.

#### **2.3.2. Self-Efficacy Questionnaire**

The self-efficacy questionnaire is adaptation of survey created by Albert Bandura who is authority in self efficacy (Maddux, 1995, Schmitt, 1995, 1996, cited in Guhangu, 2007). It is included 40 items with corresponding 6-point likert scale responses option. A certain behavior stated and followed by six numbers, each one corresponding to extent to which a respondent believed the statement applied to him or her. An example is "I know I can read a text in English and answer questions about specific information," followed by 0 (corresponding to not sure) 1 2 3 4 5 (corresponding to completely sure). The participants were asked to circle number that best represented the degree to which the corresponding statement applied to them. Self-efficacy questionnaire has been proved to have a high content validity and its reliability is 0 .96 (cited in Guhangu, 2007).

#### **2.3.3. Self- Regulation Capacity in Vocabulary Acquisition Scale (SRCvoc)**

The SRCvoc is developed by Dornyei, Schmitt, and Tseng (2006)-focusing, on the realm of vocabulary learning-- to measure language learner self- regulation. The questionnaire items (20 statements) involve six- point likert scales ranging from "strongly Agree" to "strongly Disagree", and respondents are required to mark their answers that best express their personal vocabulary learning experience. Furthermore, the overall reliability of the whole SRCvoc scale is as high as 0.92 and it is valid, composed of five subscales (commitment, metacognitive, satiation, emotion, and environmental control) each with 4 items: tapping into the learner self-regulatory process.

## 2.4. Procedures

First the researcher obtained permission from the professors to visit their classes and explained the purpose of the study to the students. Students who gave their consent answered Vocabulary Levels Test. Then it scored so as to establish homogeneity by selection of 102 subjects out of 132. After administering the VLT, in another session, the self-efficacy questionnaire handed out and scored along with self-regulation in vocabulary acquisition in order to specify the rate of self-efficacy and self-regulation in vocabulary acquisition of the selected subjects.

## 3. Result

In order to examine the purpose of the study a series of statistical analyses were carried out by SPSS software.

### 3.1. Descriptive Analysis of the Vocabulary Levels Test

Standardized Vocabulary Levels Test was employed as the main criteria to homogenize learners regarding with their vocabulary knowledge.

Table 3.1 Descriptive Statistic of the Vocabulary Levels Test (N=102)

	N	Range	Minimum	Maximum	Mean	Std. Deviation
<b>VLT-New</b>	102	70	72	142	105.45	22.871
Valid N (listwise)	102					

Table 3.1 represents that the mean score of the participants is 105.45 within the range of zero to 150. The highest and lowest scores obtained are 72 and 142 respectively.

### 3.2. Descriptive Statistics for Data of Self-Efficacy Questionnaire

One of the instruments used in the present study was self-efficacy questionnaire which contains 40 items in 0-5 system of scoring.

**Table 3.2 Descriptive Statistics for Self-Efficacy Questionnaire**

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Self-Efficacy	102	118	73	191	144.69	25.905	671.049
Valid N (listwise)	102						

As table 3.2 indicates the mean score of the participants was 144.69 within the range of zero to 200. The highest and lowest scores obtained were 73 and 191 respectively.

### 3.3. Descriptive Statistics for Self-Regulation Capacity in Vocabulary Acquisition Scale (SRCvoc)

The other instrument used for the purpose of this study was Self-Regulation Capacity in Vocabulary Learning Scale (SRCvoc). For the facility of statistical analysis each of them were converted to 1-6 system of scoring.

Table 3.3 Descriptive Statistics for (SRCvoc) Questionnaire

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
1. satiation	102	5	1	6	3.35	1.446	2.092
2. emotion	102	4	2	6	4.80	1.072	1.149
3. environment	102	5	1	6	4.41	1.330	1.769
4. commitment	102	5	1	6	4.56	1.473	2.170
5. metacognitive	102	5	1	6	4.51	1.225	1.500
6. emotion	102	4	2	6	4.65	1.123	1.260
7. commitment	102	5	1	6	4.30	1.333	1.778
8. satiation	102	4	2	6	4.53	1.069	1.143
9. metacognitive	102	5	1	6	4.21	1.229	1.512
10. commitment	102	5	1	6	4.48	1.088	1.183
11. metacognitive	102	5	1	6	4.24	1.092	1.192
12. emotion	102	5	1	6	3.28	1.588	2.522
13. commitment	102	5	1	6	4.24	1.299	1.687
14. environment	102	5	1	6	4.42	1.138	1.296
15. emotion	102	5	1	6	4.35	1.183	1.399
16. metacognitive	102	5	1	6	4.29	1.011	1.022
17. environment	102	5	1	6	4.51	1.370	1.876
18. satiation	102	5	1	6	3.69	1.364	1.861
19. satiation	102	5	1	6	4.05	1.222	1.493
20. environment	102	5	1	6	4.65	1.131	1.280
Valid N (listwise)	102						

Table 3.3 presents the descriptive statistics pertaining to Self-Regulation Capacity in Vocabulary Learning Scale (SRCvoc). It indicates that the 12<sup>th</sup> item has the least Mean of 3.28 with SD of 1.588 while the second item has the highest Mean of 4.80 with SD of 1.072. SRCvoc contains 20 items with 5 subscales: satiation, emotion, environmental, metacognitive, and commitment and they are shown in table 3.4.

Table 3.4 Descriptive Statistics for Sub- Scale of SRCvoc Questionnaire

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
<b>Commitment</b>	102	13	10	23	17.58	3.201	10.246
<b>Metacognitive</b>	102	14	9	23	17.25	2.844	8.088
<b>Satiation</b>	102	13	9	22	15.62	3.221	10.377
<b>Emotion</b>	102	14	9	23	17.09	2.979	8.873
<b>Environmental</b>	102	14	10	24	17.99	3.419	11.693
<b>Valid N (listwise)</b>	102						

### 3.4. Testing the Hypothesis

Pearson correlation coefficient between self-efficacy and five constructs of self-regulation in vocabulary acquisition – satiation, emotion, environmental, commitment and metacognitive- was conducted.

Table 3.5 Pearson Correlation between Self-Efficacy and Constructs of Self-Regulation in vocabulary acquisition

		Commitment	Metacognitive	Satiation	Emotion	Environmental
Self-Efficacy	Pearson Correlation	.343**	.478**	.242*	.228*	.297**
	Sig. (2-tailed)	.000	.000	.014	.021	.002
	N	102	102	102	102	102

According to the table 3.5 all of correlation coefficients are significant ( $P < 0.05$ ) and we can conclude that there is a positive relation between self-efficacy and five constructs of self-regulation in vocabulary acquisition. To test difference between self-efficacy and self-regulation in vocabulary acquisition of Iranian male and female EFL learners, an Independent Sample T-Test was conducted. Table 3.6 compares means of self-efficacy and self-regulation in vocabulary acquisition of females and males. It shows that females' means in sub-scales of commitment, metacognitive, satiation and environmental factors are higher than males' while means of both males and females were same to a great extent in self-efficacy and emotion.

Table 3.6 Comparing Males and Females' Self-Regulation in Vocabulary Acquisition and Self-Efficacy

<b>Sex</b>		<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
<b>Self-Efficacy</b>	Female	62	144.95	24.440	3.104
	Male	40	144.28	28.343	4.481
<b>Commitment</b>	Female	62	18.15	3.024	.384
	Male	40	16.73	3.336	.527
<b>Metacognitive</b>	Female	62	17.65	2.637	.335
	Male	40	16.63	3.069	.485
<b>Satiation</b>	Female	62	16.00	2.823	.358
	Male	40	15.03	3.718	.588
<b>Emotion</b>	Female	62	17.06	3.233	.411
	Male	40	17.10	2.600	.411
<b>Environmental</b>	Female	62	18.47	3.150	.400
	Male	40	17.50	3.883	.614

As table 3.7 Indicates, there is no statistically significant difference between male and female participants regarding with self-regulation in vocabulary acquisition and self-efficacy.

Table 3.7 Independent Sample T-Test of Self-Regulation in Vocabulary Acquisition and Self-Efficacy of Male and Female

	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Self-Efficacy	.128	100	.898	.677	5.279	-9.797	11.151
Commitment	2.022	100	.053	1.420	.639	-.153	2.987
Metacognitive	1.788	100	.077	1.020	.571	-.112	2.152
Satiation	1.502	100	.136	.975	.649	-.313	2.263
Emotion	-.058	100	.954	-.035	.609	-1.243	1.172
Environmental	1.381	100	.170	.968	.701	-.422	2.358

#### 4. Discussion

Beliefs of personal capabilities affect the type of goals that individuals select and their commitment to them (Zimmerman, 1995). According to Dornyei, Schmitt, and Tseng (2006) commitment control helps to preserve or increase the learners' original goal commitment (e.g. keeping in mind favorable expectations or positive incentives and rewards; focusing on what would happen if the original intention failed). Individuals who feel cable of performing a task are more likely to set challenging and specific goals (Bandura, 1986). Self-efficacy beliefs can affect self-regulation processes, but this relationship is reciprocal and self-regulation can also influence ones' self perception of own abilities. Goal-setting influences self-efficacy perception because it enables learners to evaluate goal progress and personal mastery over tasks (Zimmerman & Cleary, 2006). Metacognitive control as another self-regulation sub-scales involves the monitoring and controlling of concentration, and the curtailing of any unnecessary procrastination (Dornyei, Schmitt, and Tseng, 2006). Pajares (2002) states that self-efficacy is related to self-regulatory learning variables , for instance students cable of performing academic self-efficacy make better use of cognitive strategies and self-regulatory practices through use of metacognitive strategies and this causes successful academic performance. This notion can prove why the learners who rated themselves as high efficacious were more autonomous. Satiation control helps to eliminate boredom and to add extra attraction or interest to the task (Dornyei, Schmitt, and Tseng, 2006). It suggests that efficacious learners generally use interest enhancement strategies to regulate vocabulary acquisition by thinking of ways to add a twist to the task and use their fantasy to liven up the task. Pajares (2002) states that individuals possess a self-system that

enables them to exercise a measure of control over their thought, feeling, and action. Dornyei, Schmitt, and Tseng (2006) state that emotion control concerns the management of disruptive emotional states or moods, and the generation of emotions that will be conducive to implementing one's intentions. They also added that environmental control helps to eliminate negative environmental influences and to exploit positive environmental influences by making the environment an ally in the pursuit of a difficult goal. Efficacious learners can make changes in their own cognitive processes and action and then alter their environment. Also regarding with results of the present study, it seems that students who rated themselves efficacious applied greater amount of self-regulative environmental and emotional control in their vocabulary acquisition. Despite proved relation between self-efficacy and self-regulation in vocabulary acquisition, there is no difference regarding with gender.

## **5. Conclusion and Pedagogical Implications**

Regarding to the limitation of the present study, it can be concluded that self-efficacy beliefs and self-regulated strategies are two important constructs which can facilitate hitherto process of vocabulary acquisition assist EFL teachers and learners, and those who are involved in curriculum development and assessment. According to Thornburry, S. & Harmer, J. (2002), learning the vocabulary of a second language presents the learner with challenges such as making the correct connections between the form and the meaning of words and using the correct form of a word for the meaning intended. To meet these challenges they suggested that EFL learners need strategies not only to acquire mass of words but also to recall them and cope with any gaps in their vocabulary knowledge. To this end, self-regulated learners initiate the self-scheme to satisfy their self-setting goals through use of vocabulary learning strategies. Self-efficacy is the most useful self-schema for education because it relates to choices and actions that affect learning such as goal-setting, persistence, resilience, effort, and strategy" (Shaughnessy, 2004, p. 172). Efficacious learners are more flexible at adapting strategies based upon own self-judgment after self-monitoring. They also persist longer when they face with obstacles and they focus more on whole in a task while less efficacious learners focus on detail. Teachers can benefit from the methodology of present study to recognize learners' shortcoming in VLS and help them to employ strategies more efficiently. But how teachers can encourage students to be self-regulated and help them to acquire knowledge of VLS? According to the Travers & Sheckley (2000), Student actual performance on classroom academic task significantly improved after the training of SRL and cognitive strategies and they have become more self-regulated. Also, they added, there is no a universal set of good VLS for all learners, but they may use cognitive strategies more if they be efficacious and find out the VLS suitable. To this end, teachers aid learners with establishing a real short-term goal to achieve it. As a result learners experience success which helps them to improve their VLB and interest in vocabulary acquisition.

## References

- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall
- Bandura, A. (1997a). *Self-efficacy: The exercise of control*. New York: W. H. Freeman and Company
- Clapham, C., Schmitt, D., & Schmitt, N. (2001). Developing and exploring the behavior of two new versions of the vocabulary levels test. *Language Testing* 18(1), 55-88.
- Dornyei, Z., Schmitt, N., & Tseng, W. (2006). A new approach to assessing strategic learning: the case of self-regulation in vocabulary acquisition. *Applied Linguistics*, 27(1), 78-102.
- Guhungu, O. N. (2007). *The relationship among strategy use, self-efficacy and language ability in foreign language learners*. Unpublished Dissertation. Northern Arizona University, Arizona, USA.
- Laufer, B. (1997), *the lexical plight in second language reading: Words you don't know, words you think you know, and words you can't guess*. In J.
- Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting & task performance*. Englewood Cliffs, New Jersey: Prentice Hall.
- Nation, P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Pajares, F. (2002). Overview of social cognitive theory and self-efficacy. Retrieved December 5, 2008 from <http://www.emory.edu/mfp/eff.html>.
- Park, S. (1995). Implications of learning strategy research for designing computer-assisted instruction. *Journal of Research on Computing in Education*, 25(4), 435-456.
- Schunk, D. H. (1986). Verbalization and children's self-regulated learning. *Contemporary Educational Psychology*, 11, 347-369.
- Schunk, D. H. (1994). Self-regulation of self-efficacy and attributions in academic settings. In D. H. Schunk & B. J. Zimmerman (Eds.), *Self-regulation of learning and performance: Issues and educational applications* (pp. 75-99). Hillsdale, NJ: Erlbaum.
- Shaughnessy, M. F. (2004). An interview with Anita Woolfolk: The educational psychology of teacher efficacy. *Educational Psychology Review*, 16, 153-176.
- Thornburry, S., & Harmer, J. (2002). *How to teach vocabulary*. Longman.
- Travers, N. L., Sheckley, B. G. (2000). *Changes in students' self-regulation based on different teaching methodologies*. Paper presented at the 40<sup>th</sup> Association for Institutional Research Forum, Information for the Next 100 Years. Cincinnati, Ohio: May 21-May 24, 2000.
- Zimmerman, B. J. (1995). Self-regulation involves more than metacognition: A social cognitive perspective. *Educational Psychologist*, 30, 217-221.

- Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of Self-Regulation* (pp. 13-39). San Diego, CA: Academic Press.
- Zimmerman, B. J., & Cleary, T.J. (2006). Adolescents' development of personal agency: The role of self-efficacy beliefs and self-regulatory skills. In F. Pajares, & T. Urden (Eds.), *Self-efficacy beliefs of adolescents* (pp.45-69). *Information age*. Retrieved December 5, 2008 from [http://www.des.emory.edu/mpf/zimmermn\\_cleary.adoed5](http://www.des.emory.edu/mpf/zimmermn_cleary.adoed5)