

Effectiveness of concept mapping strategy on EFL learners' Attitude and gender difference outcomes in vocabulary Acquisition

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Abstract

This study investigated the effects of concept mapping strategy on Iranian EFL learners' attitude in vocabulary learning. In addition, along with various debates related to gender-based differences on learners' performance in language learning, the current study attempted to explore and compare the effectiveness of concept mapping strategy on vocabulary learning outcomes of male and female learners. For these aims, 40 male and female Iranian EFL learners from different majors of Chabahar Maritime University were participated in the study and randomly divided into two groups of control and experimental. Although the test of proficiency was conducted to the learners, before the treatment the researcher preferred to check learner's homogeneity by Nelson English Language Proficiency Test. Then, the students in the experimental group were taught through concept mapping instruction. After the treatment, attitude questionnaires were administered to the experimental group. In addition, a number of semi-structured interviews were conducted to validate the outcomes of attitude questionnaire. Finally, the obtained data revealed EFL learner's improvement in learning and retention of vocabularies through adopting the concept mapping strategy that significantly has effect on learner's attitude toward vocabulary learning. In addition, exploring the gender difference showed no significant difference between vocabulary learning outcomes of male and female learners ($sig= 0.080, p>0.05$).

Keywords: Learning strategies, meta-cognitive strategies, Concept mapping strategy, attitude, gender.

1. Introduction

It is believed that among different areas of second language learning, vocabulary holds a pivotal position in language learning process (Knight, 1994; Ellis, 1994; Laufer, 1997; Nation, 2001; Schmitt, 2008). Possible contribution of vocabulary to the success or lack of success of learners in learning and mastering in second language has made it as a challenging domain for most EFL learners. Some factors such as lack of immediate environment and instead rely on academic situation for vocabulary learning parallel to the huge amount of vocabulary to be learned have faced most EFL learners with serious difficulties (Koosha and Akbari, 2010; Souleyman, 2009). Logically, mentioned situations lead EFL learners toward failure or undesirable results in acquiring and using vocabulary and ultimately affect to learner's attitude toward this crucial domain. On the other hand, the gap between learners attempt for vocabulary acquisition and gaining suitable result can negatively influence the learner's attitudes toward it, degrade their motivation and in long-term widen negative learning outcomes. According to Arefinezhad and Golaghaei (2014) as time passes, negative attitude of learners leads to losing their motivation to learn a language and are becoming more demotivated. Various researches carried out on learner's attitude toward vocabulary learning reported that majority of the EFL learners did not favor learning vocabulary, and hence, anything related to vocabulary learning was boring and not enjoyable to them (Arefinezhad and Golaghaei, 2014; Farmand and Abdolmanafi Rokni, 2014; Sadeghi, 2013; Uribe Martínez, et.al, 2013; Rastegar, Akbarzadeh, & Heidari, 2012; Deng, 2010; Sakai and Kikuchi, 2009).

Hence, as negative attitude of learners can be a disaster for vocabulary learning and consequently educational system, imbuing positive attitude may help them to remain enthusiastic to learn vocabulary. This idea emphasizes the fact that among different factors that influence the foreign language learning, affective variables such as attitudes, orientations, motivation and anxiety are as important and crucial factors (Noels, Pelletier, & Vallerand, 2000; Culhane, 2004; Zheng, 2012; Sadeghi, 2013). Thus, it needs to receive more attention in EFL learner's attitude due to its direct effect on their motivation for learning and its outcomes in overall language learning process.

Anyhow, complexity of vocabulary and its related difficulties in learning and remembering for EFL learners are undeniable but disputable actuality related to this complicated process is how elevate learners to overcome their negative attitudes. In this regard, different studies show that language learning strategies and learners' attitude are two important elements contributing to students' successful learning (Ellis, 1994; Yang, 1999; Brown, 2000, Nunan, 2001; Dornyei, 2007). Therefore, all the things that matter to researcher and it seems quite beneficial for language teachers is seeking the best strategies to help learners diminish their negative attitude toward vocabulary learning, develop a positive attitude toward it and re-motivate the learners. For this aim, current study attempted to consider the effectiveness of concept mapping as metacognitive strategy on Iranian EFL learner's attitudes towards learning vocabulary. Also, the study, it was tried to discover whether developing a learner's meta-cognition through concept mapping strategy effects on learners' retention of vocabulary and consequently on their attitude toward vocabulary learning.

2. Literature review

This study focuses on strategic instruction of vocabulary and motivational constructs of attitude for EFL learners. Attitude is analyzed in this study because of its direct relations with learners' motivation and consequently their learning and achievement.

2.1 The process of learning vocabulary

Vocabulary learning is crucial task for mastering in second language. Logically, lack of extensive vocabulary prevents learners to employ the language successfully and directly effects on their attitude and motivation toward language learning. Various researches supported this fact and emphasized the role of vocabulary in different language skills (Ellis, 1994; Krashen, 1982; Richards and Renandya, 2001). Furthermore, difficulties most ESL learners are involved in vocabulary learning made it a challenging task. In fact, vocabulary learning is a complex process includes different cognitive stages. Nation (2001) proposed three stages which may contribute to a learner's vocabulary acquisition namely noticing, retrieval and creative use. According to Laufer (1997) noticing is an important stage as it affects the extent to which the word is learned. The second stage, retrieval contains recalling the learned words. And finally in creative or generative stage learners with enough vocabulary can use them effectively and productively in different contexts (Mutalib, et.al, 2013). Therefore, in order to be achieved, learners have to know enough about the words and their meanings then practice using the vocabulary learned actively to enhance both retrieval and creative use.

2.2 Attitude

Teachers and researchers distinguished different variables contributing to effective second language learning, but among them attitude is an affective variable which has a determinant role in the process of learning a new language (Gardner, 1980; Wenden, 1987; Gardner, Trembly & Masgurt, 1997; Ellis, 1994; Dornyei, 1997; Brown, 2006). Different definitions have been proposed for attitude. According to Ellis (1994), learner's learning largely depends on their belief about language learning. The reason learners' attitude is an important and effective variable in language learning is that it influence on future behavior. On the other hand, learners' negative and positive attitudes toward language learning may effect on their react favorably or unfavorably to this process. This is supported by Brown (2006), pointed out that second language learners, benefit from positive attitudes, and negative attitudes may lead to decreased motivation. Therefore, considering the relationship between attitude and motivation, it is clear that positive attitude on the domain of language leads learners to development of motivation. Wenden (1991) proposed a broader definition of attitudes involves the person's emotions towards an object, likes or dislikes, with or against. Gardner (ibid) defines attitudes as person's feelings, bias, fears, threats, and convictions about any specified topic. A large number of studies have investigated the relationships between attitude and proficiency supported the role of attitudes on learning language (Bachman, 1990; Malallah, 2000; Coleman, Strafield, & Hagan, 2003).

All studies support the fact that one of the reasons for some failures and problems of EFL learners in vocabulary learning might be negative attitude toward it. Logically, learners have an innate need to be competent and effective in their learning and it is natural that by failure they defeat their negative attitudes. As, the more positive attitude leads to more motivation

for more efforts in learning process, training EFL learners in utilizing a useful vocabulary learning strategy maybe the best solution to do this.

2.3 genders

As researches indicate, using learning strategies in language classroom can be a significant factor in the success of EFL learners. But, there are some factors which may influence on the strategies that the language learners select and use (Yilmaza, 2010). Therefore, one focus of many researches in the area of EFL is concerned with investigation of the relationship between language learning strategies and some aspects may have an influence on the process of acquisition. Among different factors, gender is one factor that has powerful effect on learning the second language and accordingly, ways of study, as well as selecting or using of language learning strategies language (Gardner and Lambert, 1972; Oxford et. al, 1988; Ehrman & Oxford, 1990; Bacon and Finnemann, 1992; Ellis, 1994; Oxford and Green, 1995; Ehrlich, 1997; Davis & Skilton-Sylvester, 2004).

Therefore, in investigation of effective language learning gender is a key factor which its influence on learning process and learners' strategy usage should be account in agenda. Due to the lack of study in this field, this study tries to investigate the gender influences in differences vocabulary achievement through utilizing concept mapping strategy.

2.4 Language learning strategies

From the late 60s and early 70s, and with significant shift from greater emphasis on learners and learning rather than on teachers and teaching, training a self- directed and less dependent learners became the goal of curriculum. Parallel to this new shift of interest, language-learning strategies as a determinant factor in facilitation of learning has been the primary concern of many researchers. Different scholars proposed various definitions from learning strategies. Oxford (1990) defines language learning strategies as approaches or techniques that learners use to enhance their progress in developing L2 skills. Ellis(1994) defined learning strategy as the particular approaches or techniques that learners employ to try to learn an L2(1997, p. 76).Cook (2001) defines learning strategies as a choice that learner makes while learning or using the second language that affects learning. Moreover, Griffiths (2003) states language-learning strategies as activities that are consciously chosen by learners for regulating their own language learning. However, the consensus is that when a language learner sticks in a challenging task, solving the problem is possible with adopting an appropriate learning strategy. Zare (2012) pointed out that language learning in general and vocabulary acquisition in particular are such problem-solving tasks at different levels of complexity. Vocabulary learning is a complex process including memorizing words, learning the meaning, retention, and finally using accurately. However, complexity of vocabulary learning process caused negative attitude of second language learners toward it. Punthamsen (2007) found that most of students do not want to learn vocabulary because they find it boring and teaching methodology in the classroom is not interesting. Therefore, employing learning strategies as processes to enhance the learning and using vocabulary as well as motivational tools can be useful to overcome the barriers (Cohen, *SECOND LANGUAGE LEARNING AND USE STRATEGIES:CLARIFYING THE ISSUES*, 1996).Infact, the great emphasize of language learning strategies is on providing clearer understanding of what learners think and do during learning process. This process leads to develop the learner's meta-cognition and will effect on their attitude.

2.4 Meta-cognitive strategies

By emergence of learning strategies and efforts to raise the self-consciousness of learners, meta-cognition received more attention in cognitive psychology. In fact, metacognition includes individuals being aware of their knowing and learning ways and being able to effectively organize their own learning, requires students to know how their minds work (O'Malley & Chamot, 1990; Oxford, 1990; Ellis, 1994; Nunan, 2001; Brown, 2006; Kumaravade, 2000). When EFL learners face a new problem, using meta-cognitive strategies can help them to evaluate whether they will be successful or not, decide on the steps they should take to complete a task, observe how processes proceed, and transfer the experiences they had to the next process (Gourgey, 1998). Therefore, considering the negative attitude of most EFL learners toward vocabulary learning, developing learners' metacognition through appropriate learning strategies plays an important role in their arriving at a successful result. Findings of researches shows that individuals with higher metacognitive awareness are better at planning, managing information, monitoring, debugging mistakes, and evaluating compared to individuals with low metacognitive awareness (Tosun & Senocak, 2013). Therefore, sustaining learners' positive attitude and consequently raising their willingness about the vocabulary learning task will be possible with an appropriate meta-cognitive strategy.

2.5 Concept mapping strategy

Concept maps have been described as metacognitive tools (Mintzes, Wandersee, & Novak, 1997) that helps learners to think about what they know through the visual representation of concepts and their relationships. Following the cognitive aspect of concept mapping strategy which emphasizes the development of meaningful learning to enhance learning, it helps learners improve their meta cognition to control their own cognition by arranging, planning and evaluating. On the other hand, concept mapping strategy provides opportunity for learners to evaluate their learning process and make sure that the task is done (Cassata-Widera, 2006). Structure of concept maps is consist of concept positioned in some circles or boxes and the relationships between these boxes which are shown by connecting line linking two concepts. These lines represent the relationship between the two concepts. When concepts and linking words are carefully chosen, these maps can be useful tools for observing a subtle distinction of meaning, helping users to organize their thinking, and summarizing subjects of study. Hierarchical representation of concept maps give students opportunity to think about the connection between the terms being learned, organize their thoughts, visualize the relationship between concepts and reflect on their understanding. Therefore, different phases of concept mapping help learners to control their metacognition, including planning, evaluation, and correction leading to better retention of words.

3. Methodology

3.1 Subjects

The subjects of this study were enrolled at English center of Chabahr Maritime University. Therefore, the total of 40 EFL male and female learners of pre-intermediate level took part in

this study and their age range was about 18-30 year-old. Although, the test of proficiency was conducted to the learners but before the treatment the researcher preferred to check learner's homogeneity by Nelson English Language Proficiency Test. All participants did not have prior experience in constructing concept mapping strategy. Then subjects were divided into the experimental and control groups. All these subjects passed 2 levels of Top Notch books.

3.2 Instrument

3.2.1 Data collection tools

In order to provide data and subsequent analysis, several instruments were used in this study include placement test, pretest and posttest, delayed posttest, questionnaire and interview.

Prior to beginning the study, a Nelson English language proficiency test was administered in order to identify the participants' level of language proficiency. The test contains 50 multiple-choice test which was adopted from Fowler and Coe (1978). After that students took a pre-test, which was a 50 item multiple choice questions designed for the course book of this study by Redman (1997). Similar vocabulary test in nature was run as a posttest. The delayed post test was taken two weeks after the posttest in order to measure the subjects' long-term retention. A questionnaire adopted from Ali et.al study (2012) was adopted to analyze the experimental group' attitude toward vocabulary learning after they were exposed to concept mapping strategy. It consists of 14 closed-ended items. The purpose of using the questionnaire before the treatment was to observe what the subjects' attitude toward vocabulary learning is. A Likert Scale is used to measure the students' responses by choosing any of these responses: '5' for Strongly Agree (SA), '4' for Agree (A), '3' for Neutral (N), '2' for Disagree (D) and '1' for Strongly Disagree (SD). Furthermore, a number of semi-structured interviews were conducted to validate the outcomes of the attitudes questionnaire. A number of five questions regarding the students' attitude toward concept mapping strategy were asked and the learners stated their own attitude and feelings about it. It was tried to see to what extent the participants found concept mapping strategy effective and how it could help them to better memorizing and recalling the vocabularies they were taught.

3.3. Procedure

At first, Nelson English Language Proficiency Test was given to students for checking their homogeneity, and those students whose scores fell one standard deviation above and below the mean were selected for the study. A total of 40 learners took part in this study. Next, they were divided into two groups, namely control and experimental and a pretest was run for both groups. The material which was English vocabulary in use pre-intermediate was taught in a period of six weeks of instruction for both groups. Three sessions were held every week and each session lasted 90 minutes. Concept mapping strategy as the treatment was administered to the experimental group for learning vocabulary items. In the first session, a brief introduction to concept mapping provided and explained what was expected of the participants. Therefore, it was explained why, when and how this strategy can be used. At this time, a researcher spent a time training students to draw concept maps related to the chapter they studied. and asked them to draw some concept maps collaboratively. In collaborative concept mapping, learners form groups and try to construct a concept map and

share their vocabulary knowledge with other members of their group. Drawing concept mapping collaboratively helps learners to reduce their anxiety of low vocabulary knowledge.

During the correcting process, the researcher identified any misconceptions and then modified these misconceptions for the class. Then the researcher asked them to continue the exercise and draw concept mapping individually.

In each session, the researchers began with a brief review of previous sessions and 10 minutes were allocated to learners to review their concept map. The mentioned procedure was repeated until the end of the selected units of the textbook. However, in the control group the same material was taught without any specific strategy proposed by the teacher and the students were free to choose any one. They were asked to the exercise next to each unit and be ready for the next session.

At the end of the treatment, a posttest was administered in order to assess their vocabulary knowledge via the same test used in the pretest. Then, the researchers administered the questionnaire to the experimental groups. The aim of this questionnaire was to provide feedback on whether concept mapping strategy had affected experimental groups' attitude toward vocabulary learning.

Finally, as the last phase of this study, six participants were randomly selected among the experimental group for a semi-structured interview. Five questions were asked from each participant in a 20- minute session of interview and they stated their opinions toward the adopted strategy by the researcher and its effectiveness or its shortages.

3.4 Data analysis

In initiation of the study, an Independent t-test was run to prove the homogeneity of the participants in the experimental and control groups in terms of their vocabulary knowledge prior to the experiment. Also, investigating the effectiveness of Concept Mapping Strategy on the learner's attitude towards vocabulary learning was done through analyzing the qualitative and quantitative data. The quantitative data obtained from an attitude questionnaire and qualitative data gained from a number of interviews was used to answer the third question.

4. Results

In order to check the learners' homogeneity, an independent t-test was run to the participants in the experimental and control groups in terms of their vocabulary knowledge prior to the experiment.

Table 1: Descriptive Statistics Pretest

		N	Mean	Std. Deviation	Std. Error Mean
GROUP					
PRETEST	EXPERIMENTAL	20	21.1000	5.44736	1.21807
	CONTROL	20	20.9000	5.11859	1.14455

Table 2: Independent t-test Pretest

		Levene's Test for Equality of Variance		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
PRETES T	Equal variance assumed	.010	.921	.120	38	.905	.20000	1.67143	-3.18364	3.58364
	Equal variance not assumed			.120	37.854	.905	.20000	1.67143	-3.18407	3.58407

As displayed in Table1, the mean scores for experimental and control groups are 21.0 and 20.9 respectively. Also, statistical analysis showed that the P value is .905 which is significantly higher than 0.05 (Table 2). This implies that there is no meaningful difference between the background knowledge of vocabulary of participants.

In order to test the second question, an Independent t-test was run to compare the gained scores of male and female participants in the experimental group.

Table 3: Descriptive Statistics Gained Score

	Group	N	Mean	Std. Deviation	Std. Error Mean
Gained Score	Female	10	21.2000	5.63323	1.78139
	Male	10	21.0000	5.55778	1.75752

Table 4: Independent t-test Gained Score for Male and Female Participants

		Levene's Test for Equality of Variance		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Gained Score	Equal variance assumed	.065	.802	.080	18	.937	.20000	2.50244	-5.05744	5.45744
	Equal variance not assumed			.080	17.997	.937	.20000	2.50244	-5.05751	5.45751

As displayed in Table 3, the mean gained scores for male and female participants are 21 and 21.2 respectively. The descriptive statistics for the two groups are displayed in Table 4, revealed that the p- value is 0.802. This amount is higher than .05. Based on these results, it can be claimed that there is not a significant difference between male and female's gained scores.

As mentioned before, an attitude questionnaire was administered at the end of the treatment for the experimental group which sought to learn vocabulary through CMS. The quantitative analysis was done due to the frequency of answers.

Table5: Frequencies

N		SA	A	N	D	SD
		Q1	Frequency	5	8	2
	Percent	25.0	40.0	10.0	10.0	15.0
Q2	Frequency	-	-	1	5	14
	Percent	-	-	5.0	25.0	70.0
Q3	Frequency	3	3	1	5	8
	Percent	15.0	15.0	5.0	25.0	40.0
Q4	Frequency	7	9	-	4	-
	Percent	35.0	45.0	-	20.0	-
Q5	Frequency	2	3	4	8	3
	Percent	10.0	15.0	20.0	40.0	15.0
Q6	Frequency	-	2	1	9	8
	Percent	-	10.0	5.0	45.0	40.0
Q7	Frequency	-	3	3	9	5
	Percent	-	15.0	15.0	45.0	25.0
Q8	Frequency	-	3	5	9	3
	Percent	-	15.0	25.0	45.0	15.0
Q9	Frequency	1	3	1	10	5
	Percent	5.0	15.0	5.0	50.0	25.0
Q10	Frequency	13	7	-	-	-
	Percent	65.0	35.0	-	-	-
Q11	Frequency	4	9	3	3	1
	Percent	20.0	45.0	15.0	15.0	5.0
Q12	Frequency	1	3	-	11	5
	Percent	5.0	15.0	-	55.0	25.0
Q13	Frequency	1	2	3	9	5
	Percent	5.0	10.0	15.0	45.0	25.0
Q14	Frequency	1	3	2	7	7
	Percent	5.0	15.0	10.0	35.0	35.0

Analyzing the questions 1 to 7 that focuses on the behavioral tendency on the learners' attitudes towards vocabulary showed that most learners in the experimental group have a positive attitude towards vocabulary and was willing to learn vocabulary. These findings are showed briefly in table 1. Learners' response frequency to the questions 7 to 11 revealed that the subjects had a strong sense of self-confidence in learning and using vocabularies. Also, the results obtained from questions 11 to 14 revealed that that Concept Mapping Strategy has a significant effect on facilitating the learning vocabulary and enhancing learners' behavioral tendencies towards it.

Interview on the students' attitude towards vocabulary learning

In fact, the questionnaire was used to collect more in-depth information on the learners' attitudes and interests that could not be directly observable. An interview was considered to allow researcher to investigate learner's emotions which were not directly observable. For this aim, eight students were asked the five following questions:

- (1) Does your English vocabulary learning improve? If yes, how? If no, give reasons;
- (2) What do you do if you encounter new words?
- (3) Are you interested to improve your vocabulary as an activity to improve your language?
- (4) Do you think the concept map help you learn English vocabulary better? Why or why not?
- (5) Do you feel the concept mapping help you in comfortable using words when talking to your classmates or teacher?

Question 1: Does your English vocabulary learning improve? If yes, how? If no, give reasons;

Except two students from the experimental group, all of the learners who were interviewed mentioned that their vocabulary learning has improved. Also, all learners of experimental group talked about CMS as an interesting activity that launched them during the process of VL and helped them to learn vocabularies easier and faster. Nima, one of the learners, declared that drawing the lines and connecting the concepts helped him to better understand the meaning of words. Zahra said "*knowing the fact that which word should be use in which situation usually was my dream and hierarchical structure of concept maps helped me to use each word in its appropriate place*". Four students had the same idea on this point. Nasirian answered: "I ought to learn vocabulary but knowing about assistant techniques encouraged me".

Question 2: What do you do if you encounter new words?

Mina from the experimental group was the first learner who answered this question. She laughed and answered: "*I immediately try to draw its concept map*". Two other learners answered similarly. Hashemi explained: "*I start to learn vocabulary without stress and anxiety because whenever I feel the word is complicated, I use concept mapping*".

Question 3: Are you interested to improve your vocabulary as an activity to improve your language?

Most of experimental learners answered positively and believed that concept mapping has helped them in learning vocabulary. Amir said: "*Whenever I am free, I strat drawing a concept map and check my vocabulary knowledge*". Mina said: "*instead of Sodoko I prefer to draw concept map to learn and review the new vocabularies*". Only Naser stated that he is ought to learn vocabulary whether he likes or dislikes.

Question 4: Do you think the methods were taught can help you learn English vocabulary better? Why or why not?

It was noticeable that four out of all students who were taught CM affirmed the effectiveness of using the CMS for better learning of vocabulary because of some advantages. All students of the experimental group believed that CM is a useful tool in memorizing the words and retaining the meanings of the words for a long time. The second

advantage of CM as students declared was its effect on easily reviewing the learned words. One student explained that using the concept mapping was interesting because its foundation was logical. Noori said *"I can draw as many branches in the maps as possible, it's interesting. It helped me more than before"*. However, two students believed that CMS needs time. Mina believed that: *"it takes a long time to know how draw a concept map words"*.

Question 5: Do you feel the comfortable in using words when talking to your classmates or teacher?

Zahra from the experimental group said *"Whenever I want to recall the words have learnt before, I try to imagine all the branches of a central word. Then the words with the related meanings come into my mind"*. Nasirian said: *"By drawing the concept map, in fact I improve my logic by putting the words with the related meanings into a map. Imagination of these maps usually helps me in remembering the words and by this way I solved my problem of forgetting the words while I'm speaking"*. Pouya – name answered: *"when I find new words in the magazines or stories, then I like to learn them but it is hard for me to recall the words without the context. When I want to use them in speaking, it is difficult for me to remember that. But visualizing through concept mapping helped me to learn better the word and remember, so I prefer to learn it with aid of concept mapping."* All the other learners answered similarly.

Discussion and conclusion

As mentioned before, the major concern of the current study was to explore the effectiveness of concept mapping strategy on Iranian male and female EFL learner's attitude toward vocabulary learning. In addition, it compared the vocabulary learning outcomes of male and females through utilizing concept mapping strategy. According to findings of the research, it seems that the explicit teaching of metacognitive strategy have influence on improving the EFL learners' acquisition and retention of vocabulary which leads to enhancing their attitude in encountering the new vocabularies acquisition. For this aim, experimental group received concept mapping strategy as an assistant tool in vocabulary learning and control group were taught vocabulary without any specific strategy instruction. Moreover, an attitude questionnaire completed immediately after the treatment by the experimental group. With regard to the questionnaire, the reported frequency of learners' responses to the first seven statements revealed the learners' tendency towards vocabulary learning. In addition, it was detected that learners had a sense of self-confidence in learning and using vocabularies. Reported frequency of learners' responses to the other group of statements reveals that most respondents favored Concept Mapping Strategy and the sense of self- assurance in learning vocabulary and overcoming the associated difficulties derived from the effectiveness of this strategy. Learner's responses to the interview supported the data obtained from the questionnaire and emphasized the fact that, Concept Mapping Strategy not only reduced learners' anxiety towards vocabulary learning, it also helped them to control their learning process and consequently enhanced their positive attitude towards it.

The results of research therefore support the previous studies focused on explicit training of other types of meta-cognitive strategies that supported the relationship between explicit

training of metacognitive strategies and learner's attitude toward language learning (Kolić-Vehovec, 2014; Zuraina et al, 2013; Mutalib et al, 2013; Zuraina, Mukundan, Baki, and Ayub, 2012; Ozsoy, 2009; Magogwe, 2007; Jing, 2005; Yang, 1999).

Particularly, Results obtained from this research question were favorable with Schmitts' (2008) idea about enhancing learners' attitude towards vocabulary learning through developing learners' metacognitive knowledge on controlling the learning process. Moreover, findings supported the Kleitman & Gibson (2011) who asserted that a broad set of beliefs which encompass students' perceptions of their cognitive abilities should converged to metacognitive beliefs which acted as an important positive predictor of Self-confidence and achievement. Moreover, stronger metacognitive beliefs lead to less negative attitude and tendency towards learning process.

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