

The Effect of Using Semantic Maps on Jordanian EFL 8th Grade Students' Vocabulary Learning

Dr. BassmahOzbi Fraihat
Jordan Minisrty of Education.

Abstract: This study investigated the effect of using semantic maps on Jordanian EFL 8th grade students' vocabulary items. The participants of the study were 83 females eighth grade students from two intact sections from Ballie Secondary School for Girls. One was assigned as a control group which was taught by the guidelines of the Teacher's Book, and the other as an experimental group, which was taught the semantic maps based- instructional program. Teaching the instructional program lasted for eight weeks during the first semester of the academic year 20182019-. The instruments used to collect data were a pre-/post- vocabulary test.

The findings of the study showed that there were statistically significant differences (at $\alpha \leq 0.05$) between the students' performance on the vocabulary test in favor of the students in the experimental group. The improvement in the students' vocabulary items could have been a result of using semantic maps in teaching vocabulary items. The students expanded their vocabulary items. Several recommendations were put forth for EFL researchers and the Ministry of Education.

Key words: semantic maps; vocabulary items expansion.

Introduction and Background

Learning vocabulary items is crucial for EFL Eighth grade students in Jordan since it helps them improve themselves in various skills such as reading comprehension, writing, speaking and listening. Vocabulary learning enables students communicate effectively and express their own ideas. Therefore, it supports learning the four skills of the language. According to Sedita (2005), vocabulary is one of the five essential components of reading instruction; the others are phonemic awareness, phonics and word study, fluency, and comprehension.

It is worth mentioning that in Jordan English is taught as a foreign language in basic and secondary stages. However, Jordanian students face most of their problems in having sufficient vocabulary items. Because of this problem, teachers need to use appropriate strategies that respond to students' styles such as semantic mapping (Hedgcock& Ferris, 2009). Semantic mapping is a visual strategy that is used to display the connection between words. It may be beneficial for weak students. Jonassen; Beissne, and Yacci (1993) state that using semantic mapping facilitates learning vocabulary and improves the ability to recall words. According to Omaggio (2001) semantic mapping includes building a graphic organization of associated clusters of a key word. It can be considered as a motivation since it may encourage the learner to search for meaning of the vocabulary items by classifying words in categories to show the connection between them.

Statement of the problem

Throughout my years of practicing my job as EFL supervisor at Jordan Ministry of Education, it has been noticed that the Jordanian EFL Eighth Grade Students face difficulties in expanding and recalling vocabulary items which is clear in their evaluation. The problem may due to the lack of the appropriate strategies that teachers use in teaching vocabulary items. Amoush (2012) reported that most EFL Jordanian do not build relationships between the terms in the text to build up the meaning.

Therefore, the main concern of this study is to explore the effects of semantic mapping on the Jordanian EFL Eighth Grade Students' learning vocabulary since semantic mapping can be modified as effective strategy for expanding words and connecting between them.

Purpose and question of the Study

This study aims mainly at investigating the effect of using semantic mapping on Jordanian EFL Eighth Grade students' learning vocabulary. It aims at answering the following question:

To what extent does semantic mapping improve Jordanian EFL Eighth Grade Students' learning vocabulary?

Significance of the Study

To the researcher's best knowledge, a few studies have been conducted to investigate the role of semantic mapping on Jordanian students' learning vocabulary. This study specifically focuses on the role of semantic mapping in developing Jordanian eighth Grade students' learning vocabulary. Thus, the English language curriculum designers may find in this study some practical implications for developing students' vocabulary learning.

The study may have some pedagogical implications. Teachers may benefit from the results of the study and become more informed regarding improving vocabulary learning. Moreover, the findings may be beneficial to the Jordan Ministry of Education which may take the recommendations into consideration when designing new curricula.

Operational Definition of Terms

The following terms will have the associative meaning whenever they appear in the study. Semantic mapping: is using mind maps to teach vocabulary items about a certain topic visually in terms of classifying and connecting between words.

Vocabulary learning: knowing the meaning of a word and how it connects to other words. In this study, vocabulary learning is measured by the students' scores on the vocabulary test.

Review of the Related Literature

This section is divided into two parts. The first part concerns with the theoretical literature of the study, and the second part sheds light upon the empirical studies conducted in the field and is relevant to the current study.

Theoretical Literature

Much information has been written about the benefits of semantic mapping strategy in facilitating students' learning vocabulary through increasing their vocabulary items and through helping students in connecting between related words and improving students' motivation. Bleckley (2008) reported that the semantic mapping is beneficial approach that involves associating new words with other words already present in the learners' mental lexicon. Debate (2006) indicated that semantic mapping is a useful strategy that helps teachers in assessing students' prior knowledge.

Empirical Studies

On the practical level, some research has been done on using semantic mapping in teaching vocabulary to explore the effects of using this strategy. Nilforoushan (2012) investigated the effect of semantic mapping (as a post-reading strategy) on sixty EFL intermediate female learners' awareness of two affective dimensions, evaluation and potency dimensions of deep vocabulary knowledge. The study revealed that students in the experimental group were aware of the affective domains due to using semantic mapping.

Raiziene and Grigaite (2005) examined the effect of using semantic mapping strategies on developing child's thinking skills. They described semantic mapping as a strategy in which information is categorically structured in a visual representation. They examined the cognitive outcomes stimulated by the teachers' use of semantic mapping as a strategy for accelerating two cognitive operations: classification and seriation in a child's seventh year. The study revealed that the experimental group who participated in the training was creative. It also revealed that the semantic mapping training is suitable for stimulation of classification and seriation operations' development.

Thuy (2006) conducted a study on Grade 11 students at Tran QuocToan High School to explore the effects of semantic mapping on students' memorizing and students' attitudes towards this method. Three instruments were employed to collect both quantitative and qualitative data: the tests on vocabulary knowledge, the questionnaire on the students' perceptions towards semantic mapping, and the interview on the students' attitude towards semantic mapping. The findings indicated that the students in the experimental group outperformed those in the control condition in retaining word meanings. The results also proved that the students had positive attitudes towards semantic mapping.

Abdollahzadeh and Amiri (2009) investigated the effectiveness of vocabulary instruction via semantic mapping on two hundred and sixty-four intermediate adult Iranian EFL learners from different language institutes in Orumieh in Iran. The study revealed using semantic maps to teach vocabulary items had a positive effect on the vocabulary learning of adult Iranian EFL learners.

Banisalameh (20009) explored the effects of a program based on semantic mapping and questioning reading strategies on Hashemite University students' reading comprehension. The findings of the study revealed that the students who studied the redesigned reading comprehension texts based on semantic mapping performed better than the students who studied the material following the instruction in the New Head Way Plus textbook.

In general, the literature on using semantic mapping has been very encouraging in improving readers' vocabulary learning. Moreover, there seems to be no experimental studies at all (to the best knowledge of the researcher) on the effect of semantic mapping as a strategy conducted among Jordanian EFL learners.

Sampling, Instrumentation, Data Collection and Data Analysis

To achieve the purpose of the research, a sample of two intact eighth-grade classes was purposefully drawn from Balila Secondary school for girls, Jerash, Jordan since the researcher works in Jerash Directorate of Education. One -39student section was randomly assigned to the control group and another -41student section to the experimental group. The control group was taught by the conventional methods outlined in the Ministry-prescribed Teacher Book whereas the experimental group was taught through the instructional program. The two groups were pre- and post-tested on vocabulary. Between the pre- and post-test, the instructional program, which comprises the vocabulary items of seven reading comprehension texts, was implemented over a seven-week interim, with two -40minute sessions a week.

To answer the research question, which addressed the potential effect of using semantic mapping on vocabulary learning, means, standard deviations, adjusted means, and MANCOVA were used to determine any potentially significant differences in the participants' vocabulary learning, which can be attributed to the treatment.

Validity and Reliability of the Instrument

The pre-post-vocabulary test was checked by a jury of two university professors and four English supervisors to establish the validity of the instructional program. The jury made a number of suggestions which were all taken into account in the final versions of the instrument.

To establish the reliability of the pre-post- vocabulary test, it was administered twice to a sample of 20 students, who were excluded from the main sample of the study, with a two-week time lapse. Pearson correlation coefficient between the first and the second administration amounted to 0.85 which was deemed suitable for purposes of the current research.

Findings of the Study

To answer the research question, means and standard deviations of the students' pre- and post-test scores were calculated, as shown in Table 1 below.

Table 1: Means and Standard Deviations of the Students' Pre-/Post-Vocabulary Test Scores

Std. error	Adj. mean	Post		Pre		n	Group	Vocabulary Learning Domains
		Std. dev	Mean	Std. dev	Mean			
0.36	11.91	4.39	11.87	4.72	9.68	39	Control	Classifying and connecting words
0.36	13.31	3.64	13.34	4.47	9.81	41	Experimental	
0.40	8.13	3.76	8.12	4.21	6.63	39	Control	Identifying meaning of new words
0.40	8.35	4.36	8.37	4.87	6.60	41	Experimental	
0.27	3.35	3.17	3.31	3.23	2.60	39	Control	Defining words
0.69	34.71	12.78	34.62	12.55	23.02	41	Experimental	

Table1 shows observed differences between the participants' mean scores in vocabulary on the post-test, in favor of the students in the experimental group. To determine the potential statistical significance of these differences (at $\alpha \leq 0.05$), MANCOVA was used to compare the participants' performance on the vocabulary post-test, as shown in Table 2.

Table 2: MANCOVA Results of the Students' Scores on Post- Test Vocabulary

Eta	Sig	F	SS	df	SS	Vocabulary Learning Domains	Source
0.08	0.009*	7.13	39.09	1	39.06	Classifying and connecting words	Between-Subjects
0.002	0.70	0.11	0.94	1	0.95	Identifying meaning of new words	Between-Subjects
0.09	0.006*	7.86	24.06	1	24.09	Defining words	Between-Subjects
0.25	0.000*	28.12	563.21	1	563.21	Overall	Between-Subjects
			5.47	77	421.67	Classifying and connecting words	Within-Subjects
			6.72	77	517.53	Identifying meaning of new words	Within-Subjects
			3.07	77	236.74	Defining words	Within-Subjects
			20.02	77	1542.17	Overall	Within-Subjects
				80	1375.56	Classifying and connecting words	Corrected Total
				80	1369.36	Identifying meaning of new words	Corrected Total
				80	65.41	Defining words	Corrected Total
				80	13295.55	Overall	Corrected Total

Table 2 shows a statistically significant effect (at $\alpha \leq 0.05$) in the students' mean scores on the vocabulary post-test, as a result of the instructional program which is based on using semantic maps. Note also that the practical significance of the treatment is 0.25 (from Table 2 above), which indicates a high effect for the implementation of the instructional program.

Discussion of the Findings

The findings revealed statistically significant differences (at $\alpha \leq 0.05$) between the learning vocabulary of the participants who have received the semantic maps-focused instruction and those who have not, which may signal the effectiveness of using semantic maps in teaching vocabulary items.

It seems that using semantic maps improved students' ability in classifying words and making connection between them and thus expanding the vocabulary items. This result supports the findings of Bani Salameh's (2010), who claimed that using semantic maps increases students' vocabulary and thus is regarded as an appropriate strategy for teaching vocabulary. It also goes in harmony with the findings of Zaid (1995) who confirmed the importance of using semantic mapping as a great vocabulary strategy.

Recommendations

In light of the results of this study, it is recommended that the EFL researchers should conduct a content analysis on Action Pack series for Jordanian students in order to examine the inclusion of semantic maps in vocabulary activities. The researchers also can investigate the effect of training Jordanian EFL teachers on using semantic maps in teaching vocabulary items. Moreover, they should investigate the effect of using semantic maps in improving students' reading comprehension skills.

References

- Abdollahzadeh, Esmaeel&Amiri, Naser (2009). The effect of semantic mapping as a vocabulary instruction technique on EFL learners with different perceptual learning. *European Scientific Journal*.459 –440 (25) 10.
- Amoush, Kholoud Hussein (2012). The effectiveness of using “semantic mapping strategy” on reading comprehension of Jordanian university students. *Interdisciplinary Journal of Contemporary Research in Business*, 714 ,(6)4 729.
- Bleckley, Ben (2006). Rethinking vocabulary instruction. Retrieved 11 November , 2018, from Pedagogy inpractice:[http://pedagogypractice.blogspot.com/2006/11/2006/rethinking-](http://pedagogypractice.blogspot.com/2006/11/2006/rethinking-Debat,ElbaVillanueva%20de%20(2006).Applyingcurrentapproaches%20to%20the%20teaching%20of%20reading.%20English%20Teaching%20Forum,%201%2844%29.%20Retrieved%2022%20July,%202018%20from%20exchanges.state.gov%2Fenglishteaching%2Fforum%2Farchives%2Fdocs%2F-1-44-06c.pdf)
- Debat, Elba Villanueva de (2006). Applying current approaches to the teaching of reading. *English Teaching Forum*, 1)44). Retrieved 22 July, 2018 from exchanges.state.gov/english/teaching/forum/archives/docs/-1-44-06c.pdf

- Cress, C. M. (2009). Curricular strategies for student success and engaged learning [PowerPoint slides]. Retrieved from http://www.vtcampuscompact.org/2009/TCL_post/presenter_powerpoints/Christine20%Cress20%-20%Curr%20icula20%Strategies.ppt
- Hedgcock, John.S. & Ferris, Dana.R. (2009). Teaching readers of English: Students, texts and context. New York: Routledge.
- Jonassen, David H; Beissne, Katherine & Yacci, Michael. (1993). Structural knowledge: techniques for representing, conveying, and acquiring structural knowledge. Hillsdale, N.J.: L. Erlbaum. Retrieved 28 July 2018 from https://books.google.jo/books?id=f2lqE8RuYpwC&pg=PA140&lpg=PA140&dq=semantic+maps+help+learners+clarify+meanings&source=bl&ots=f-JUKzP_jt&sig=0bk7nRrxzrP1l1Y8a6qPjiZwMCE&hl=en&sa=X&redir_esc=y#v=onepage&q=semantic20%maps20%help20%learners20%clarify20%meanings&f=false
- Nilforoushan, Somayeh (2012). The effect of teaching vocabulary through semantic mapping on EFL learners' awareness of the affective dimensions of deep vocabulary knowledge. *English Language Teaching*, 164 ,(10)5.
- Omaggio, Alice (2001). Teaching language in context. Boston :Heinel&Heinel.
- Raiziene, Saule and Grigaite, Bronislava (2005). Developing child's thinking skills by semantic mapping Strategies. *TRAMES: A Journal of the Humanities & Social Sciences*, 206–192 ,(2)9.
- Sedita, Joan (2005) Effective Vocabulary Instruction, Insights on Learning Disabilities, 45-33, (1). Retrieved 22 August 2018 from <http://www.keystoliteracy.com/wp-content/uploads/08/2012/effective-vocabulary-instruction.pdf>
- Thuy, Nguyen. The effects of semantic mapping on vocabulary memorizing. Retrieved 28 June 2018 from <http://www.litu.tu.ac.th/journal/FLLTCP/Proceeding/628.pdf>
- Zaid, Mohammed Abdullah (1995). Semantic mapping in communicative languageteaching. *FORUM*, 16 -6 ,(3)33. Retrieved 14 August 2018 from <http://dosfan.lib.uic.edu/usia/E-USIA/forum/vols/vol33/no3/p6.htm>.
- Zorfass, Judy; Gray, Tracy & PowerUp WHAT WORKS (2014). Connecting Word Meanings Through Semantic Mapping Retrieved 27 February 2018 from <http://www.ldonline.org/article/61474/>