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## The Effect of Semantic Mapping in EFL Vocabulary Acquisition

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**Abstract:** The foundation of language is vocabulary; however those learning a language may not be adept at employing strategies to aid with word memorization. This article's major goal was to compare the impact of the semantic mapping approach on the vocabulary mastering of forty Uzbek learners. The participants were divided into two groups at random: a control group that received typical direct translation instruction, and a treatment group that received semantic mapping instruction. Both groups were given a pre-test and post-test to gauge the effectiveness of the technique. The findings demonstrate that the participants' vocabulary learning significantly differed when the semantic mapping technique was used.

Key words: semantic mapping strategy; direct translation; vocabulary learning strategy.

## 1. Introduction

The importance of vocabulary to language learners cannot be overstated.<sup>1</sup> The fundamental gateway to a language is its vocabulary. It serves as a pyramid's base. Language structures wouldn't exist without words. Words serve as the foundation of language since they label the things, do things, and express ideas without which individuals cannot communicate their intended meaning.<sup>2</sup>

Theorists and scholars in the discipline have only recently come to understand the significant significance that vocabulary knowledge plays in learning a second or foreign language.

As a result, many different approaches, techniques, exercises, and practice methods have been developed to teach vocabulary.<sup>3</sup>

It has been recommended that vocabulary instruction should strive to provide students with the tools they need to increase their vocabulary rather than just focus on teaching them specific terms.

Memory methods, one type of language learning strategy, are seen as essential in vocabulary instruction. Because they "make learning easier, faster, more pleasurable, more self-directed, more effective, and more transferable to different settings," Oxford (1990)<sup>4</sup> argued that memory techniques should be viewed as "strong mental tools" for language learners to deal with vocabulary



<sup>&</sup>lt;sup>1</sup> Zimmerman, C.B. (1998). Historical trends in second language vocabulary instruction. In J. Coady and T. Huckin (Eds.), *second language vocabulary acquisition: A rationale for pedagogy* (pp. 5-19). Cambridge: Cambridge University Press.

<sup>&</sup>lt;sup>2</sup> Nation, I.S.P. (2001). *Learning Vocabulary in another language*. Cambridge: Cambridge University Press.

<sup>&</sup>lt;sup>3</sup> Schmitt, N. (1997). Vocabulary learning strategies. In N. Schmitt X M. Mc Carthy (Eds.), *vocabulary: description, acquisition and pedagogy* (pp. 199-228). Cambridge: Cambridge University Press.

<sup>&</sup>lt;sup>4</sup> Oxford, R. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House.

learning challenges. Mnemonic techniques, according to Johnson and Obi (1993)<sup>5</sup>, may aid learning challenged kids in their spelling abilities as well as their vocabulary long-term memory.

It might be worthwhile to investigate the impact of an explicit strategy teaching on Intermediate students' vocabulary development in light of the benefits of strategy-based instruction. The primary focus of this research, strategy, might be categorized as "semantic mapping". The purpose of learning is to store and retain vocabulary for a longer amount of time, so the researcher has made an effort to determine the impact of applying this technique.

Memory strategies, according to Hsiao and  $Oxford (2002)^6$ , "are specific mnemonic devices that help learners move information to long-term memory for storage reasons and retrieve it from long-term when it is needed for application". The majority of memory techniques, also referred to as mnemonics, involve grouping, using some kind of imagery, or connecting the word to be remembered with previously learned information. Semantic mapping, however, falls within the heading of memory technique in this study.

Memory techniques have "a highly particular function: helping students store and recall new information. $^{7}$ 

Her research revealed that "language learners have a major problem recalling the extensive vocabulary required to acquire fluency". Memory techniques were quite helpful in solving the learning issue. As a result, Oxford's classification scheme for strategies includes memory strategies as a major group.

Semantic mapping is another helpful technique that may be taught to students of any ability level. It entails creating a diagram of the connections between words based on how they are used in a certain text. To increase comprehension of a text and build associative networks for words, semantic mapping has the effect of bringing relationships in a text to consciousness. It is ideal to frame its introduction as a team effort between the instructor and the class.

A diagram of this kind "illustrates how concepts fit together. This technique, which combines several memory techniques like grouping, using imagery, associating, and elaboration, is crucial for enhancing both recall and comprehension of new vocabulary items (An, 2006).<sup>8</sup>

In guided semantic mapping, students collaborate with the teacher to create a semantic map around a particular topic. The teacher then purposefully introduces several target vocabularies words, places them on the map, and elaborates on them with the students. The students then use the semantic map to complete a piece of writing. A student in the group can be tasked with making sure the target words are used if the writing is done in a group setting.

## 1.2. Memory Strategy: semantic mapping

Vocabulary acquisition is now getting a lot of attention in L2 pedagogy and research because it is so important for learning a second language (L2). The majority of research that has looked at how memory techniques affect vocabulary learning has looked at language learning in terms of grouping, semantic mapping, and imagery. Several research have discovered a connection between these memory techniques and vocabulary learning.

According to the "depth of processing hypothesis," which forms the basis of these studies, the more cognitive effort someone expends when modifying and thinking about a word, the more likely they

<sup>&</sup>lt;sup>5</sup> Johnson, D., & Obi, S.C. (1993). Mnemonics: Can you spell it? (*ERIC Document Reproduction Service No. ED 394-220*)

<sup>&</sup>lt;sup>6</sup> Hsiao, T. Y., & Oxford, R.L. (2002). Comparing theories of language learning strategies: A confirmatory factor analysis. *The modern Language Journal*, 86 (3), 368-383.

<sup>&</sup>lt;sup>7</sup> Hsiao, T. Y., & Oxford, R.L. (2002). Comparing theories of language learning strategies: A confirmatory factor analysis. *The modern Language Journal*, *86* (*3*), *368-383*.

<sup>&</sup>lt;sup>8</sup> An, S. C. (2006). A Study on English vocabulary learning strategies. Unpublished master's thesis, National Chiayi University, Taiwan.

are to remember and apply it later (Craik & Lockhart, 1972; Craik & Tulving, 1975).<sup>9</sup> According to current research, teaching vocabulary through memory techniques makes it easier to store and recall new vocabulary words. Studies have looked into the results of memory vocabulary learning techniques.

The subjects in the experimental group employed a mnemonic graphic organizer technique for vocabulary acquisition, while the subjects in the control group got the identical training in the subject material. The use of graphic organizers was found to be much more effective with starting ESL students than traditional classroom instruction, and equally effective across high and low ability groups in terms of vocabulary acquisition.

Sagarra and Alba (2006)<sup>10</sup> examined the efficacy of rote memorization, semantic mapping, and the keyword approaches for learning vocabulary among 778 beginning L2 learners. The findings showed that methods for acquiring vocabulary that call for more in-depth processing through form and meaning correlations (such as the keyword method) produce the best retention. Moreover, memorizing L1-L2 equivalents by rote was more efficient than associating words with different meanings (i.e., semantic mapping). The findings also indicated that direct L1 keyword-translation linkages and phonological keywords used in conjunction with the keyword approach in the classroom improve L2 vocabulary learning at the beginning stages of acquisition.

Overall, the evidence to date supports the idea that teaching vocabulary through memory techniques makes it easier to store and retrieve new vocabulary words. The goal of the study is to ascertain how the semantic mapping approach affects the vocabulary acquisition of Uzbek EFL learners. Simply expressed, the purpose of the study is to examine the effects of teaching new language using semantic mapping to the experimental group vs the control group, where students will learn new vocabulary through traditional direct translation. This investigation aimed to answer the following question:

**Research question:** Does semantic mapping strategy have any significant impact on Uzbek EFL learners' vocabulary learning?

Accordingly, the following null hypothesis was formulated for the above-mentioned research question:

## 2. Method

## 2.1. Participants

At Learning Center "Clever," forty lower-intermediate pupils took part in the study. The participants' ages ranged from 19 to 27. Eighty pupils took the NELT (Nelson English Language Test), a competency test. 40 students who received a score of 70 from this pool took part in the study. These 40 pupils were randomly split into an experimental group and a control group.

Traditional direct translation was used to treat the control group while memory strategy training was given to the treatment group (semantic mapping). The researchers instructed the same vocabulary course book to both groups. The participants, one-year students majoring in a variety of subjects, including physical education, accounting, electronic, computer, and management, took a two-hour elective course in general English once a week for one semester in order to improve their reading and vocabulary in that language. When the participants were divided into groups at random, a pre-test based on their general English course book was given to determine their level of vocabulary mastery before to treatment.



<sup>&</sup>lt;sup>9</sup> Craik, F., & Lockhart, R. S (1972). Levels of processing: A framework for memory research. Verbal Lang. *Verbal Behav. 11: 671-684*.

Craik. F., &Tulving. E. (1975). Depth of processing and retention of words in episodic memory. J. Exp. Psychol. Gen. 104: 268-294.

<sup>&</sup>lt;sup>10</sup> Sagarra, N., & Alba, M. (2006). The key is in the keyword: L2 vocabulary learning methods with beginning learners of Spanish. *Modern Language Journal*, *90*, *2*, 228-243.

## 2.2. Instrumentation

Based on their proficiency results, 40 students were selected from a total of 80 for this study. To ensure that the two groups' competence levels were comparable, the NELT (Nelson English Language Test) proficiency test was given. The course book concentrated on a variety of general English-related subjects, including those relating to animals, plants, music, work and leisure. The glossary in this textbook served as the source for the vocabulary words.

The target training words were picked as 200 words in total from the glossary list in the textbook. The study also included two English vocabulary examinations, the pre-test and the post-test, which were created by the researchers to gauge the participants' vocabulary proficiency. Each of the six test portions had six questions, and both tests used the identical test format. The tests had a total of thirty questions, and each one was worth one point. The pupils who properly answered every question received 30 points.

#### 2.3. Procedure

Several presentational methods of vocabulary were used in the experiment to teach the control group. In other words, each vocabulary word was written down separately on the board. The instructor next gave the pupils an oral pronunciation of each word, described its elements of speech, and then supplied a literal translation of each term into Persian. This method was used in every class for the duration of the semester, during which time the students were not given any advice on how to learn new words. The experimental group, however, received instruction and learning using a completely different strategy.

Prior to the teaching and learning session, the participants gained some strategy awareness by becoming familiar with the term "strategy" and its definition. They were then given some real-world examples to help them practice using the desired strategy. The students were instructed to come up with as many relevant words to the lesson's subject as they could before the teaching in the semantic mapping group began (e.g., polar bear). The teacher next taught some additional relevant vocabulary and arranged the ideas and their connections to form a semantic map on the board. The learners were then instructed to practice the new words in the passage that was suited for them before using them in the subsequent activities.

To quantify the results of the semantic mapping technique and compare it to the direct translation method of vocabulary acquisition, a post-test was given to the two study groups in the final phase of the investigation. The post-test followed a format similar to the pre-test, which had 30 questions. Following data collection, statistical analysis was done on the results.

#### 4. Discussion

The purpose of this study was to determine how one memory technique affected Uzbek learners' vocabulary recall. The depth of processing hypothesis underlies the reasoning. This theory contends that the nature of the cognitive processes used to process information determines how well it is remembered rather than the length of time a person is exposed to it.

Using statistical analysis, the researcher discovered some indication that vocabulary acquisition performance of the learners was influenced by memory strategy training. It doesn't matter how recently students have learned anything. The depth of processing is actually more significant in learning; therefore, pupils must be taught how to process information profoundly. As a result, memory techniques for acquiring vocabulary engage students in deeper processing, which improves retention.

## 5. Conclusion

The goal of the current study was to determine how one memory technique affected Uzbek learners' vocabulary recall. Both experimental and control group participants' vocabulary learning performance was gathered and evaluated using the predetermined standards. By contrasting the participants' performance on the pre-test and post-test, the effect of one memory strategy lesson on



vocabulary learning was identified. The results of earlier studies provide evidence for the value of memory strategy teaching in enhancing vocabulary learning.

The results of this study further support the idea that learning new words, engaged thinking, and better memory are all closely related. The depth of processing hypothesis contends that the more thoroughly information is processed, the better it is kept, and this study supports that assertion. In other words, the more thoroughly something is processed, the more likely it is to be recalled.

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