Exploring the Role of Teaching Semantic Mapping in Reinforcing Vocabulary Learning among Undergraduate Students
(During the Academic year 2022)

Dr: Tohami Mohammed Hassan Mohammed Noor

Dr: Sabir Mirgani Ali Ahmed

Dr: Nura Abdelfatah Yousif Rasheed

Dr: Saad Abbakar Bakheet Ahmed.

Abstract :

This study aims at exploring the role of teaching semantic mapping in reinforcing vocabulary learning among undergraduate students. The study adopted the experimental method; pretest and posttest is used as a primary tool for data collection. It was conducted among (30) students of first year at College of Languages Sudan University of Science and Technology. For data analysis the researchers used (T- test) program to analyze and verify the hypothesis. The results revealed that: There are statistical significant differences among the respondents of experimental group in term of pre-posttest. In addition, the strategies of using semantic mapping help students enrich their vocabulary, using this strategy makes students more creative; through semantic mapping learners can easily acquire vocabulary. Furthermore, this strategy enhances student's ability to learn English vocabulary. The researchers recommended that: using the strategies of semantic mapping to enhance students' learning vocabulary. Moreover, English language teachers should encourage students to use semantic mapping strategies to improve their vocabulary.

Key words: Proficiency, Memorizing, Recalling, Identification and Appropriateness.

إستكشاف دور تدريس الخرائط الدلالية في تعزيز تعلم المفردات لدي طلاب المرحلة الجامعية
(خلال العام الدراسي 2022)

تهامي محمد حسن محمدنور – كلية التربية – جامعة دنقلا.د

د.صابر ميرغني علي أحمد – كلية التربية- جامعة السودان للعلوم والتكنلويجيا

نورا عبدالفتاح يوسف رشيد – كلية التربية – جامعة دنقلا

د. سعد أبكر بخيت أحمد – كلية التربية أساس – جامعة زالنجي.

مستخلص :

تهدف هذه الدراسة إلي إستكشاف دور تدريس الخرائط الدلالية في تعزيز تعلم المفردات لدى طلاب الجامعة. إتبعت الدراسة المنهج التجريبي وإستخدم الاختبار القبلي والبعدي كأداة أولية لجمع البيانات. حيث أجري الاختبار لعدد (30) طالبا من المستوي الاول بكلية اللغات جامعة السودان للعلوم والتكنلوجيا. وتم أستخدم أختبار ت (T-test) في هذه الدراسة لتحليل وتحقيق الفرضية. وأظهرت نتائج الدراسة: توجد هنالك فروقات ذات دلالة احصائية في أوساط المستجيبين للمجموعة التجريبية من حيث التحصيل في الاختبارالقبلي و البعدي. بالاضافة الي ذلك، إستخدام الخرائط الدلالية تساعد الطلاب لتغذية ذخيرتهم اللغوية من المفردات. وأستخدام هذه الاستراتيجية تجعل الطلاب اكثر إبداعا، ومن خلال الخرائط الدلالية أن يكتسب الطلاب المفردات بصورة أسهل. علاوة على ذلك، هذه الإستراتيجية تحسن مقدرة الطلاب لتعلم مفردات اللغة الانجليزية. وأوصى الباحثون بضرورة تطوير الطلاب أدائهم في تعلم المفردات باستخدام استراتيجية الخرائط الدلالية.بالاضافة الي ذلك على أساتذة اللغة الانجليزية إستخدام إستراتيجية الخرائط الدلالية في تدريس المفردات.

الكلمات الافتتاحية: كفاءة، يحفظ، تذكر، تطابق،ملاءمة.

Introduction

English Language is an international language all over the world. It is express learners' ideas, thoughts and cultures. Also, it is one of the most important resources in transforming the human cultures from one generation to another. Within it the learners go deep in the past and know the present and future. Until quite recently, vocabulary study has not been considered as an important part of second language research as pertinent to teaching and learning. Researchers did not think that the vocabulary knowledge had a direct relationship with learners as second language proficiency, and not much effort was put into research into the teaching and learning of vocabulary. It was by 1990s that vocabulary "assumed

its rightful place as fundamentally important aspect of language development,"(Nunan, 1999:103). It has been found that students need to have basic knowledge of vocabulary to improve language proficiency.

Writing skill represents critical and crucial issue in mastering English language the fact behind that people of different walks of life communicate in different written formats on a regular basis to negotiate, over price ,apply for a job ,advertise products and services ,deliver speech, convey feelings, attitudes , beliefs ...etc. Higher position in ministries, firms, organizations universities require a profound grasp of writing mastery for a better communication. Hedge (1988:302) mentions that in order to produce coherent and well organized written work, student should be exposed to a variety of techniques and strategies which are basically oriented towards developing the area of language appropriateness, style ,content , organization and grammar .In the words language learners with rich vocabulary knowledge are likely to improve language proficiency (Rinsland, 2008). As a result of this, lexical knowledge currently plays an important role in language of teaching and learning as well as applied linguistics. Knowing the importance of vocabulary, both teacher and student's audience need to put a lot of effort into teaching and learning of the language. They believed that "acquiring a large and varied vocabulary is essential for communicative competence and one of the central tasks for second language learns"(McCrositie 2007:246).At the early stage of teaching and learning the vocabulary improvement, research was done on how individual words shall be taught and learnt (Schmitt 2000). Teachers also focused on the teaching for example recalling. (Nunan, 1999), with the growing importance of autonomous learning, Schmitt (1997) suggested that the vocabulary shall not be taught only; students should also participate in their vocabulary learning. Teaching should focus on the teaching strategies for im-

proving vocabulary learning strategies than on the learning of individual vocabulary items. From then on, the focus has to be shifted to the teaching and learning of vocabulary improved strategies.

Statement of the Problem:

Vocabulary learning has been and will continue to pose the most serious problems to most learners of English. A number of researches have been conducted to approach this problem scientifically for a radical solution. The research also intends through the application of different strategies, to motivate students to augment their word power. The research views giving students only lists of lexical items without any further explanation does not only diminish the value of vocabulary but puts across the wrong message, namely this tells students that vocabulary is not important, and it gives the impression that translation from the native language L1 to the target language L2 or vice versa works perfectly well. However, it would be naive assume that all words in one language have an equivalent in another language and it is important to be aware of lexical. So the use of semantic mapping can be very effective in rendering the solution long sought. There are many factors to achieve skill of students by giving alternative materials. Hence this study will investigate strategies of using semantic mapping for developing vocabulary learning.

Objective of the Study

This study sets out to the following objective:

To examine whether or not that applying semantic mapping enhance first year students to enrich their vocabulary.

Question of the Study

This study sets out to answer the following question:

To what extent can applying semantic mapping enhance first year students to enrich their vocabulary?

Hypothesis of the Study

This Study sets out to test the following hypothesis:

Applying semantic mapping can significantly enhance first year students to enrich their English vocabulary.

Significance of the Study

The significance of this study stems from its attempt to bring up new insight into using semantic mapping to reinforce vocabulary learning amongst students. In addition to that student has to cope with many difficulties in learning vocabulary, especially in memorizing and recalling the word meanings. Furthermore, poor mastery of vocabulary makes an obstacle for students in having access to communication and actively takes part in classroom activities.

Literature Review

Definitions of Vocabulary

Several definitions of vocabulary are listed below: According to Zulfandi (2011), as cited in Anderson (1981), vocabulary has complex explanation such as first, words come in two forms: oral and printed. Oral vocabulary includes words that we recognize and use in listening and speaking. Printed vocabulary includes words that we recognize and use in reading and writing. Second words knowledge also comes in two forms: receptive and productive. Receptive vocabulary includes words that we recognize when we hear or see. Productive vocabulary includes words that we use when we speak or write. Receptive vocabulary is typically larger than productive vocabulary and includes many words to which we assign some meanings, even if we do not know their full definitions and connotations or whether we even use them as we speak and write. Vocabulary as a major component of language learning has been the object of numerous studies. According to Laufer (1997) as cited in Nilforou shan, (2012) vocabulary learning is considered as the heart of language learning and use. In fact, it is the vocabulary learning that makes the essence of any languages. Without vocabulary, speakers cannot convey meaning and com-

municate with each other in any particular language. Vocabulary is a central element of language skills and provides much of the basis for how well learners communicate with each other (Khoii and Sharififar, 2018).

Vocabulary Teaching

This would make the first examples the strongest collocations. Collocations should be presented in context. It is not a good idea to have learner match decontextualized words. Here is a list of the basic exercises types from Hasbun, (2005). Identifying chunks: This is a fundamental skill which aids language acquisition. Matching: parts of collocations, expression lines of stereotypic dialogue. Completing: Blank spaces correspond to partner words from fixed collocation. Categorizing: use categories learners perceive or follow some guidelines suggested by the teacher. Sequencing: learners are given expressions or verb and are asked to put them in the most likely order. Deleting: learners circle the word that does not belong. In the present study, the Semantic Mapping will be employed in teaching strategy to develop learners' vocabulary. Rivers (1981) suggests that vocabulary cannot be taught. Language teachers must help their students by giving those ideas on how to learn vocabulary and some guidance on what to learn. Other researchers Hulstijn (1997); Laufer, (1990) also believe that students should be given more responsibility for vocabulary learning and teachers should help them develop special effective techniques. Teaching vocabulary does not necessarily involve teaching specific words but rather equipping learners with strategies necessary to expand their vocabulary Hulstijn, (1993); Grace, (1998) and Sternberg (1987) argues that most vocabulary is learned through context, but that learning from context method works best for teaching strategies, not for teaching specific vocabulary in the same Vein, Oxford and Scarcella (1994) argue that direct vocabulary instruction should involve learning specific strategies for acquiring words both in and out of class.

Definitions of Semantic Mapping

A formal definition can be given about the concept of semantic mapping which is defined as a visual representation of knowledge or a picture of conceptual relationship Tinkahm,(1993)" a graphic arrangement showing the major ideas and relationships is in text or among word meaning". Williams, (1994) "a categorical structuring of information in graph form".

It is a visual strategy which shows the major ideas of a certain topic and how they are related Finkbeiner and Nicol,(2003) .In this study, word mapping, concept mapping and story mapping are used in teaching reading to display the interrelationships among ideas, words and components of the story. Harvey et al (2000), as cited in Krisnawati, (2014) mentioned that Semantic Mapping Strategy is a valuable instructional tool. Unlike many tools that just have one purpose, Semantic Mapping is flexible in application. The common trait of Semantic Mapping Strategy shows the order and completeness of student's thinking process strength and weakness of understanding become a clear evidence. Semantic Mapping shows the different aspects of an issue closely and the big picture, since semantic mapping uses the short word or phrases. Semantic mapping can be used to show classifications, analysis, structures, attribute examples and brainstorming. Semantic Mapping and semantic analysis draw learner prior knowledge and use discussion to elicit information about word meaning. Semantic feature analysis is similar mapping. With the exception that it uses argil rather than a map graph display following examples will illustrate the two techniques.

Type of transport	One wheeled	Two wheeled	Four wheeled	Foot powered	Motor powered	One land	In the water	In the air
Bicycle	-	+	-	+	?	+	-	-
Car	-	-	+	-	+	+	-	-
Boa	-	-	-	?	+	-	+	-
Plane	-	-	-	-	+	-	-	+
Unicycle	+	-	+	+	-	+	-	-
Motorbike	-	+	-	-	+	+	-	-

("+" for positive examples; "-" for negative examples, "?" it's which may be true in certain circumstance)

Previous studies

First study: conducted by: **Leul Abate and Yohannes Tefera**. This study examined the role of semantic mapping in cultivating the vocabulary competence of grade (8) students of Arsi Negelle Number one Elementary School. The sample of the study consisted of (112) students enrolled in two sections, which were randomly selected from five sections and assigned to both treatment and control groups. Quasi experimental design was used in this study. A vocabulary pre-test was given to both groups at the beginning of the study to make sure that they were equivalent and homogenous at the initial stage of the study. The treatment group received semantic mapping as vocabulary teaching learning technique, but the control group did not receive this treatment. At the end of the study, the same test was given to the two groups to investigate the effect of semantic mapping vocabulary teaching technique in cultivating their word knowledge. The results revealed significant differences between the groups in favor of the treatment group, that is, the treatment group outperformed the control group in vocabulary learning. Therefore, it can be suggested that seman-

tic mapping can be used as an efficient technique for vocabulary teaching.

The second study: conducted by: **Yagoub Zahedia and-Mortaza AbdibVocabulary**. The main objective of this study was to compare the effect of semantic mapping strategy on forty Iranian EGP learners' vocabulary mastery. The participants were randomly assigned to a control group that received traditional direct translation and the treatment group that received instruction on semantic mapping. In order to assess the efficiency of the strategy, a pre-test and post-test was administrated to both groups. The results show that using semantic mapping strategy resulted in a significant difference in the participants' vocabulary learning.

Third study: conducted by: **Yesim Dilk.** The aim of this study is to investigate the effects of using Semantic Mapping Technique in comparison to traditional technique in vocabulary learning and to find out whether there about vocabulary learning strategies (VLSs) and what strategies they prefer to use. 32 students at the pre- intermediate level of English from Selcuk University, at the Department of School of Foreign Languages took part in the study. Quantitative data was collected through a two preferences were related. For the experimental study, target vocabulary items were taught with Semantic Mapping technique to experimental group and control group was introduced with traditional technique. To analyze the difference between semantic mapping technique and traditional technique, t-test calculations were used with the results of the pre-test and post-test. According to the results, semantic mapping technique is more effective than the traditional technique in vocabulary learning.

Method of the Study

The study adopted the experimental method. Pretest and

posttest has been used as a primary tools for data collection. Pre-test and posttest was given to students of first year semester one at College of Languages- Sudan University of Science and Technology, academic year (2022).

Validity of the Test

In order to check the apparent face and content validity for the test and validation of its statements according to the formulation and explanation, the test was checked by three referees who are specialists in the field. They were approved that the tests were appropriate for the purpose of study, they recommended that some of the questions should be changed to achieve the tests aims, the researcher did recommend change as the experts suggesting.

Reliability of the Test

The observation heck list is reliable when it gives consistent result if it is reapplied in the same conditions. The researcher piloted the tools to calculate the reliability of the test.

Cronbach's Alpha	Number of Questions
82	5

Data Analysis

Table (1): Show the results of the experimental and control groups on the pre-posttest.

Pre-test		Post-test	
Experimental group	Control group	Experimental group	Control group
23	43	46	38
26	26	39	28
29	45	33	37
32	29	42	32
35	23	46	30
28	27	44	27
27	33	37	25
20	37	32	26
38	46	38	30
29	25	37	29
25	30	46	25
17	52	41	17
20	17	47	20
23	12	30	20
13	12	33	17
14	16	44	14
19	12	33	19
17	14	38	17
10	25	37	11
17	18	49	17
17	15	36	17
20	12	33	28
20	5	41	20
31	34	39	30
28	16	45	28
20	12	32	22
29	11	37	16

Table (2): Descriptive statistics for pre-posttest for both experimental and control group.

Test	Mean	Std. Deviation	N
Pretest control group	24.5	3.4	30
Posttest control group	23.3	7.2	30
Pretest experimental group	38.9	7.3	30
Posttest experimental group	25.2	5.5	30

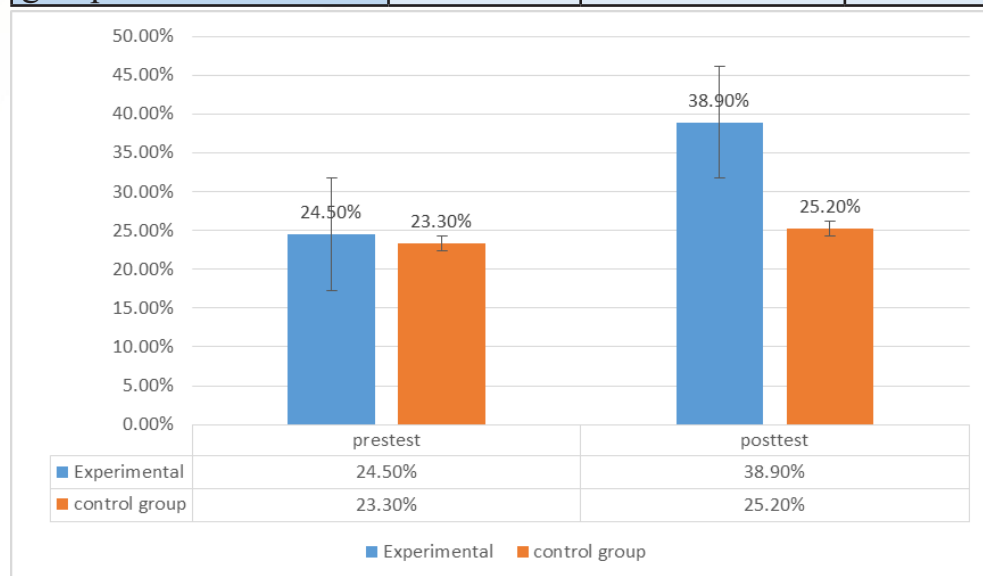|	prestest	posttest
Experimental	24.50%	38.90%
control group	23.30%	25.20%

Figure (1): Illustrates the comparison of the mean values of both groups on pre-posttest test.

According to Figure (1), the performance of the experimental group was better than the control group. There is a significant difference between the mean values after the treatment. This result proofs that the semantic mapping strategy enhance student's vocabulary.

Table (3): Descriptive statistics of pretest for both experimental and control group.

Groups	Mean	SD	DF	T-Value	P-Value	95% Confidence. Interval	
						L	U
Experimental	25.2	5.4	29	2.862	0.324	-.33	6.5
Control	23.3	5.2	29	2.824		-.34	9.7

Table (3): T-test analysis of the means of two groups in the pretest the results gained from the pretest. The mean value was calculated, mean for the control group is (23.3) and for the experimental group is (25.2). Moreover t-test is employed on these results for hypothesis testing purposes. As the results of t-test suggests P-value (0.324) being greater than (0.05). There is no significant difference between two groups.

Table (4): Descriptive statistics of posttest for both experimental and control group.

Groups	Mean	SD	DF	T-Value	P-Value	95% Confidence. Interval	
						L	U
Experimental	38.9	7.088	24	3.54	0.002	3.32	12.72
Control	24.5	7.066	24			3.30	11.40

Table (4): The results gained from the posttest the mean value was calculated, mean for the control group is (24.5) and for the experimental group is (38.9). In addition to that t-value is (3.54).

Moreover, t-test is employed on these results for hypothesis testing purposes. As the results of t-test the P-value is (0.002) being less than (0.05), there is a significant difference between two groups in favor of the experimental group. Therefore, the hypothesis applying semantic mapping enhance students vocabulary knowledge is accepted.

Discussions and Conclusion :

The analysis of the collected data in this study established that there is a strong relationship between teaching by using semantic mapping strategies and reinforcing vocabulary learning. The students who taught by using semantic mapping strategies have highly abilities better than the students who have never been taught by semantic mapping strategies. This proof the effect of semantic mapping strategies on students' vocabulary learning. It was widely needed in this field of study to fill in the gap of vocabulary learning and rising awareness towards the great effect of semantic mapping on vocabulary learning.

Findings:

In the light of test analysis and discussions the following results were revealed:

1. It is found that the strategies of using semantic mapping help students enrich their vocabulary. Using this strategy makes students creative. Through semantic mapping learners can easily acquire more vocabulary. It is also found that this strategies enhances student's ability to learn English vocabulary.

2. Another findings show that strategies of using semantic mapping can be used for learning different parts of speech. It helps student's remember the related words. It motivates students to learn and acquire different parts of speech.

Recommendations

In the light of the results and conclusions of the present study, the following recommendations were suggested:

1. Students should use semantic mapping strategies to enhance learning vocabulary.
2. English language teachers should encourage students to use semantic mapping strategies to improve their vocabulary.

References

(1) Finkbeiner, M, and Nicol, J.(2003) semantic category effects in second language word learning. Applied psycholinguistics, 24, 369-383

(2) Harvey.(2005). Semantic Mapping, htt://www.hss. Nthu. Edu. Hedge, T. (1988). Writing. Oxford University Press.

(3) Hulstijn, J. (1997).Mnemonic Methods in Foreign Language Vocabulary Learning. Cambridge University Press: Cambridge.

(4) Khoii, R. and Sharififar, S. (2013). Memorization versus semantic mapping in L2 vocabulary acquisition, ELT 67(2).

(5) Laufer, B.(1997). The Lexical Plight in Second Language Reading. In J.Coady, & T. (Eds), Second Language.

(6) Nunan, D. (1999) the learner-Centered Curriculum. Cambridge: Cambridge.

(7) Oxford, R.L. and Scarcella, R.C. (1994). Second Language Vocabulary Learning among Adults State of the Art in Vocabulary Instruction. System, 22,231-24.

(8) Rivers, W.M. (1981). Teaching Foreign-Language Skills. Chicago: The University of Chicago press.

(9) Schmitt, N. (2000).Vocabulary in Language Teaching. Cambridge University Press, Cambridge.

(10) Sternberg, R.J. (1987). Most Vocabulary is learned from context. Hillside,NJ: Lawrence Erlbaum.

(11) Tinkahm, T. (1993). The effect of semantic clustering on the learning of second language vocabulary system, 21,371-380 tw/SFL/thesis/945209.

(12) Williams. C.R.(1994.)Semantic Mapping Planning: A framework for effective, Reflective Teaching, teacher Development and teacher Research. Master of Arts thesis school for international training Brattleboro, VT377677.

(13) Zulfandi. (2011). Teachers' Strategies to Develop Students Vocabulary. (Unpublished Thesis). Banda Aceh:UIN Ar- Raniry.