



The Effects of Using teaching Vocabulary Learning Strategy through Semantic Mapping(A case Study: Omdurman Islamic University Students - College of Arts – English Department)

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ABSTRACT:

This paper aimed at studying and investigates the effects of semantic mapping as an instructional strategy for teaching vocabulary items to EFL learners, at Omdurman Islamic University and to explore the effect of this strategy on EFL student's achievement of lexical items. The sample of the study comprised of 50 male students enrolled in two sections, which were randomly selected from four sections and were randomly assigned to both experimental and control groups. Therefore, a quasi-experimental mode of inquiry was adopted in this study since the sample was chosen intentionally, but its assignment on the groups was carried out randomly. The experimental group studied the lexical items via semantic mapping strategy, and the control group studied them in the traditional method. 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 end of the experiment, the same test was given to the experimental and control groups to investigate the effect of semantic mapping strategy on EFL students' achievement of lexical items. The results revealed significant differences between the experimental and control groups in favor of the experimental group. The experimental groups received semantic mapping, but the control group did not receive this treatment. The results of the study, based on statistical analysis, indicated that the experimental group outperformed the control group in vocabulary learning. It can be suggested that semantic mapping can be used as an efficient methodology for teaching vocabulary, a technique which is effective for EFL learners. The researcher reached some conclusions and suggested some recommendations.

Key words: *Semantic Mapping, Vocabulary, Learning Strategy, Teaching Vocabulary, Traditional techniques.*

المستخلص:

هدفت هذه الورقة الى معرفة و تقصى أثر إستراتيجية خرائط الدلالة كإستراتيجية تعليمية لتدريس مفردات اللغة الانجليزية لطلاب قسم اللغة الانجليزية كلغة أجنبية في جامعة أم درمان الاسلامية و معرفة أثر هذا الاستراتيجية على تحصيل الاكاديمي للطلاب تم تطبيق هذه الدراسة في قسم اللغة الانجليزية - كلية الآداب خلال الفصل الدراسي الاول من العام الجامعي (2016-2017) تكونت عينة الدراسة من خمسون طالب تم إختيارهما عشوائياً من شعب القراء الأربعة المتوفرة في قسم اللغة الانجليزية و بالطريقة ذاتها تم تحديدها كمجموعتين تجريبية و ضابطة. درست المجموعة التجريبية مفردات اللغة الانجليزية باستخدام إستراتيجية طريقة التقليدية. إستخدم الباحث المنهج شبه التجريبي في هذا الدراسة لان العينة تم إختيارها بشكل قصدي ولكن إختيار المجموعات تم بالطريقة العشوائية. خضعت



المجموعتين التجريبية و الضابطة عند بدء الدراسة لامتحان قبلي لقياس مفردات اللغة الانجليزية للمجموعتين للتأكد و بعد إلتهاء من التجربة , خضعت المجموعتين إلى إختيار بعدى لمعرفة أثر إستراتيجية خرائط الدلالة على تحصيل المفردات للطلاب كلغة أجنبية, وتم إحصاء متوسطات علامات الامتحان القبلي و البعدى بأستخدام الاختيار الاحصائى (ت) . و قد أظهرت النتائج وجود فروق ذات دلالة إحصائية بين المجموعتين لصالح المجموعة التجريبية , وقد توصل الباحث الى مجموعة من الإستنتاجات و أقترح مجموعة من التوصيات.

الكلمات المفتاحية: خرائط الدلالة إستراتيجية تعلم المفردات , تدريس المفردات , الاساليب التقليدية

INTRODUCTION:

The importance of vocabulary in English as a secondary language (ESL) or English as a foreign language (EFL) learning process has been widely recognized. Much of the research indicates that enlarging language vocabulary has been one of the objectives of many EFL learners. Out of his experience as a teacher of English language skills, the researcher noticed that the overwhelming majority of EFL teacher were confronted with formidable obstacles in teaching new vocabulary items at the college of Arts English department, so they resorted either to giving definitions or to the most translations. According, the researcher felt the necessity to experiment the effect of semantic mapping strategy for teaching vocabulary items versus traditional approaches to EFL learners at Omdurman Islamic University, and to explore the effect of this strategy on EFL student's achievement of vocabulary items. Hatch and Brown (1995) provided impetus for this attempt by saying a modern way of teaching vocabulary is the semantic domain. According to them, semantic mapping can enhance motivation, interest, and word usefulness, knowledge of word features and functions, and acquisition of vocabulary learning strategies. Word knowledge is to successful production and comprehension of second language. Coday and Huckin, (1997) "there is now a widespread agreement about the

role of lexicon in language acquisition process, and many researchers place lexical competence, which is viewed as the ability to communicate effectively and appropriately, (Coady, 1997, Hatch, 1981). Stated that "it is the lexical level that adult second language learners claim as most important, when our first goal is communication, when we have little of the new language at our command, it is the lexicon that is crucial, the words will make basic communication possible" (p.74). For many years, little attention was given to the learning and the teaching of vocabulary in language programs. During the past decades, teachers had focused on the importance of grammar and sound system of language. These teachers believed that students' were able to learn the necessary lexicon without help Allen 1983. And the prevailing method for vocabulary teaching was the use of vocabulary drills or bilingual lists, Brown, 2001. At the early of teaching vocabulary and learning the improvement main researches were on how individual words shall teach and learn. (Schmitt, 2000) conducted also focused on the teaching of individual vocabulary items while student's mostly used rote methods for example recalling, Nunan, 1999). Raymond. C, Jones (2006) added that semantic mapping can be a helpful reference for students to use in clarifying confusing points as they are reading. Once students are familiar



with the nature of the semantic maps, they can create their own as during reading or post-reading activity.

Heimlich, J. E. & Pittelman, S.V. (1981) explained that a semantic map is one type of graph organizer it helps student's visually organize and graphically show the relationship between one piece of information and another. This strategy has been identified by researchers as an excellent technique for increasing vocabulary and improving reading comprehension. As a pre-reading activity, semantic mapping can be used to activate prior knowledge and to introduce key vocabulary words. As a post-reading activity, Words, categories, and new concepts can be added to the original maps to enhance understanding.

In addition, William, C.R. (1994) showed that semantic mapping enables students to visualize the relationships and categorize these relationships. Teachers can introduce semantic maps in circles, squares, or ovals with connected lines. To this end, the teacher can write the main idea on the board and ask students to brainstorm about the reading topic; the students can then put the words in circles which connect to the main idea.

A. Problem of the Study

The study views giving student's only lists of lexical items without any further explanation does not only decrease the value of vocabulary that it sends 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 work perfectly fine. However, it would be native assume that all words in one language have an equivalent in another language and it is important to be aware of lexical.

One of the most formidable tasks that face EFL teachers is teaching lexical items. This claim is supported by the findings of many research studies such as Nilforoushan. S (2012). Abdollahzadeh & Amiri (2009), Abu Hussein, H.M (2007) Zaghlool, Z. D. (2004). Bataineh, F.S. (2010) Srinaowaratt, S. (2001), and Defina. A. (2006). Moreover, these studies uncover that EFL teachers depend mostly on fruitless traditional strategies which are mainly wordlists, definitions and translations for example, AbuHussien, H.M. (2007) concluded her research by saying that the application of the definition strategy in EFL classrooms does not produce appositive effect on student's usage of the words of the same semantic fields.

Semantically- based strategies are almost neglected in EFL classrooms. According, the present quasi-empirical study sought to cast light on this crucial issue and to participate empirically in solving EFL teachers' dilemma in this area.

B. Aims of the Study:

The Aims of the study are as follows:

1. To identify whether semantics mapping helps the students to acquire vocabulary effectively.
2. To identify teachers perspective about teaching vocabulary through semantic mapping.

C. Question of the Study:

In order to conclude on the effect of teaching vocabulary through semantic mapping, this study attempted to answer the following question:

1. To what extent semantic mapping helps students to be aware of vocabulary knowledge?
2. Is teaching vocabulary to first year EFL learners via semantic mapping strategy more effective than using the traditional vocabulary teaching techniques?

D. Hypotheses of the Study:



The study hypothesizes that:

1. Semantic mapping helps students to be aware of vocabulary knowledge.
2. Teaching vocabulary to first year ELT learners via semantic mapping strategy is more effective than traditional vocabulary teaching techniques.

E. Limitation of the study:

1. As the study will be conducted on four reading section in English department at Omdurman Islamic University through academic year (2016- 2017).
2. The instrument of the study is the pre and post achievement tests for both: The experimental and control group.

Definition of Terms:

The following terms are operationally defined to clarify in this study as follows:

Semantic: is the technical term used to refer to the study of meaning and, since meaning is a part of language also is a part of linguistics semantic did not catch on for some time, one of the most famous books on semantics is the meaning by C.K Ogden & I.A Richards. First published was in 1923.

Semantic mapping: It is a visual strategy which is used for teaching and expanding vocabulary in which students categorize words related to other words. It can also be used in teaching other skills such as reading comprehension and writing because it displays the interrelationships among ideas Huckin, T. Haynes, M & Coady., J. (1992).

A strategy: It is a conscious plan employed to make learning more effective, easier and effortless. "A strategy is potentially a conscious plan for solving what to the individual presents itself as a problem in reaching a particular goal" William. C., R. (1994).

A lexical item: It is also called a vocabulary item or a lexeme. This term refers to a content

word which can be a noun, a verb, an adjective or an adverb.

Vocabulary: vocabulary is defined as a word in a specific language or free standing items of language that have meaning (McCarthy, 1990).

Theoretical Background

First, 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 (Antonacci, 1991:25) "a graphic arrangement showing the major ideas and relationships in text or among word meaning" Sinatra et al, (1984: 76) "a categorical structuring of information in graph form". Johnson et al (1986:68).

It is a visual strategy which shows the major ideas of a certain topic and how they are related (Raymond C. Jones, 2006). In this study, word mapping, concept mapping and story mapping are used in teaching reading to display the interrelationships among ideas, words and the components of the story.

"Semantic mapping generally refers to brainstorming associations which a word has and then diagramming the results" (Sokmen, 1997:250) Johnson, Pittelman & Heimlich describe it as "categorical of information in graphic form" (1986:779).

Developments in "lexical semantics" have prompted the development of the "semantic field theory", "semantic networks" or "semantic grids" "strategies which organize words in terms if interrelate lexical meanings. The "semantic field" theory suggests that the lexical content of a language is best treated not as a "mere aggregation of independent words" but as a collection of interrelating networks or relations between words (Stubbs, cited in Amer, 2002). It is noteworthy that words may be grouped together (related to each other) according to

different criteria. Animals, for example, may be grouped in terms of physical features; they may be grouped in terms of nonphysical features such as pet, wild, food, etc. (Gairns and Redman, 1986). Semantic elaboration consists of a series of techniques as semantic feature analysis, ordering, pictorial schemata and semantic mapping (Ellis, 1995; Sokmen, 1997).

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.

Types of Transport	One Wheeled	Two Wheeled	Four Wheeled	Foot Powered	Motor powered	On land	In the water	In the air
Bicycle	-	+	-	+	?	+	-	-
Car	-	-	+	-	+	+	-	-
Boat	-	-	-	?	+	-	+	-
Plane	-	-	-	-	+	-	-	+
uni-cycle	+	-	-	+	-	+	-	-
Motorbike	-	+	-	-	+	+	-	-

("+" for positive examples; "-" for negative examples, "?" it's which may be true in certain circumstance) **Figure: (1)** semantic feature analysis for "means of transport" (Neisel, 2000)

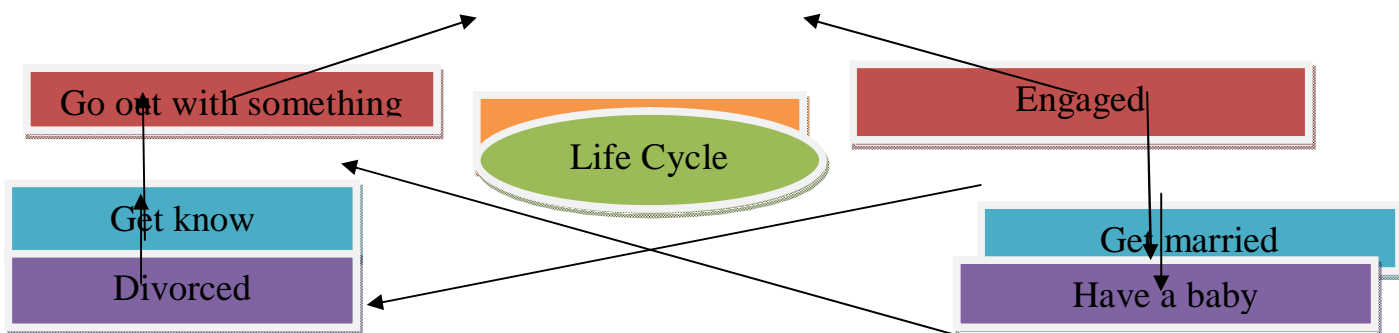


Figure : (2) semantic mapping for "human life circle" (Gairns & Redman, 1986).

Semantic elaboration focuses on word meaning association attached on words. Words appear to be organized into semantically related sets in mind and thus the associations attached to a word will affect the way that it is stored in the brain, furthermore, knowing arrange of association for a word helps understand its full

meaning and helps recall the word form or its meaning in appropriate context (Nation, 2001).

Semantic mapping generally refers to brainstorming associations which a word has and then diagramming the results (Sokmen, 1997). John, Pittelman and Heimlich (1986) described semantic mapping as "categorical structuring of information in graphic form". Semantic mapping

is one of word association techniques. It is defined as a technique to make arrangement of words into a diagram, which has a key concept

at the centre or at the top, and related words and concepts linked to the key concept by means of lines or arrows (Gairns and Redman, 1986).

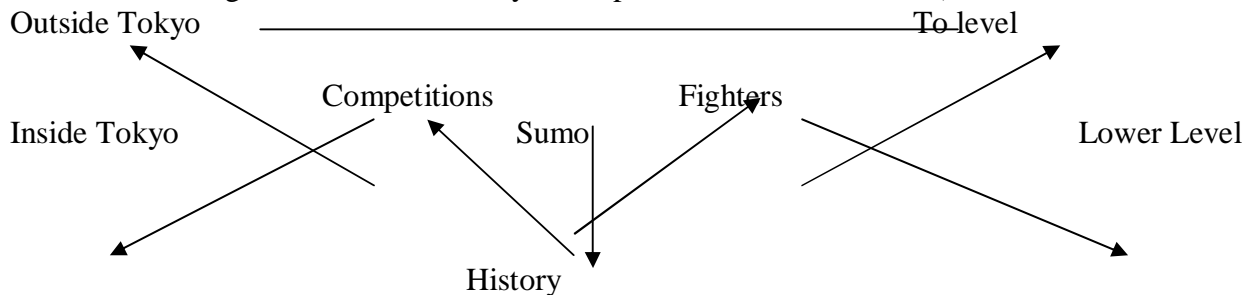


Figure: (3) Semantic mapping for the word "Sumo"

Harvey, et al. (2000) mentioned that semantic mapping strategies are valuable instructional tools. Unlike many tools that just have one purpose, semantic mapping is flexible and endless in application. One common trait found among semantic mapping strategy is that they show the order and completeness of a student's thought process - strengths and weaknesses of understanding become clearly evident. Many semantic maps show different aspects of an issue in close and also the big picture, since many semantic maps use short words or phrases, they are ideal for many types of learners, including English Language readers with intermediate proficiency. Tree maps can be used to show classifications, analysis, structures, attributes, examples, and brainstorming.

Raymond C. Jones, (2006) added that semantic mapping can be a helpful reference for students to use in clarifying confusing points as they are reading, once students are familiar with the nature of the semantic maps, they can create their own as during-reading or post-reading activity.

Thomas, H. Estes (1999) explained that semantic mapping is a strategy for graphically representing concepts. Semantic maps portray the schematic relations that compose a concept.

It assumes that there are multiple relations between a concept and the knowledge that is associated with the concept. Thus, for any concept there are at least three types of associations:

- 1- Associations of class; the order of things the concept falls into.
- 2- Associations of property; the attributes that define the concept.

He continued that the major purpose of the semantic map is to allow students to organize their prior knowledge into these formal relations, and thus to provide themselves a basis for understanding what they are about to read and study. Comprehension can be thought of as the elaboration and refinement of prior knowledge. What the semantic map provides is a graphic structure of that knowledge to be used as the basis for organizing new ideas as they are understood.

Heimlich, J. E., & Pittelman, S. V. (1986) added that a semantic Map is one type of graphic organizer. It helps students visually organize and graphically show the relationship between one piece of information and another. This strategy has been identified by researchers as an excellent technique for increasing vocabulary and improving reading comprehension. As a pre



reading activity, semantic mapping can be used to activate prior knowledge and to introduce key vocabulary words. As a post reading activity, words, categories, and new concepts can be added to the original maps to enhance understanding.

Blechley, B. (2006). He reported that three different types of vocabulary instruction have been tested through the history of English language teaching: Definition- based instruction. Consisting of a list of words that learners look up, and write the definitions down: context- as- a- clue instruction, through which meanings of the semantic mapping approach, in which new words are associated with other words already present in the learner's mental lexicon

Moreover, Debate, E., V. (2006) describe semantic mapping as a useful way to each vocabulary which "provides the teacher with an assessment of the student's prior knowledge or schema availability on the topic" (p.24).

Similary, pittelman & Johnson. (1985). Argued that semantic maps can help teachers assess the learner's prior knowledge and make students ready for encountering the text.

In a like Zaid, M., A (1995) advocated the introduction of semantic mapping in reading classrooms which had been proven to be a beneficial reading technique even for the native speakers of all educational levels. It was found that learners had shown an impressive improvement on such areas as vocabulary development, written ability and most importantly reading comprehension. Considering the positive impact semantic mapping had on EFL reading, he confirmed the use of semantic mapping as a crucial vocabulary strategy.

Materials and Methods

A. Study design

The present study should be categorized as a quasi-experiment work as there was no true randomization. According to Morgan, M. (2003) the best alternative for an experimental design is a quai-experimental formal. Due to the limitations of the study to conduct a true experiment, a quasi-experimental design was considered as the best alternative accordingly. In this design the researcher used an experimental group and control group. Both groups took a pre- test to measure their lexical items before conducting the experiment. During the experiment, the experimental group learned the lexical items via semantic mapping and the control group learned the lexical items via traditional methods and techniques. After the experiment, the same lexical test was administered as a posttest to investigate any significant differences in learning the lexical items between the two groups.

B. Setting and Context

This study was conducted in the department of English Language College of Arts, Omdurman Islamic University during the first semester of the academic year, (2016/2017). The experimental group studied the lexical items via semantic mapping while the control group studied the lexical items via traditional methods and techniques.

C. Sample

The sample of the study comprised on 50 subjects allocated to two sections. The two sections were randomly selected out of four English reading sections available in the English language department at the faculty of Arts during the first semester of the academic year, (2016/2017). The two sections were randomly assigned to experimental and control groups. The experimental group consisted of 25 male



students, while the control group consisted of 25 male students.

Instruments of the Study

The instruments of the study are the achievement vocabulary test prepared by the researcher and the content analysis of the reading texts.

A. Vocabulary achievement test

In order to measure how much learning had taken place in both the experimental and control groups, a test of vocabulary was devised by the researcher; originally, it consisted of 60 questions testing all the previously learnt target vocabulary items. This test was piloted with a group of 20 students which was excluded from the sample and later reviewing by two language testing researchers judging the workability, a propriety, and accuracy of the items. The test was modified according to their suggestions and comments. Thus 10 items which were considered to be non-fit were removed. The final version consisted of 50 test items. The target

vocabulary items were tested using a matching, gap-filling and multiple-choice test format.

B. Materials

The lexical items used in this study were taken from the first eight reading texts of reading power 2 by Jeffries & Mikulecky, B (2006). Which were taught in the first semester of the academic year (2016/2017?) The teacher taught the lexical items to the experimental group according to the semantic mapping strategy, then the researcher designed vocabulary activities for teaching the new lexemes and notes for the teacher providing him with detailed techniques for teaching the vocabulary items found in the reading units.

Results and Discussion

A. Results

The study showed that A pre-test was used in order to ensure the equivalence among the two groups in their vocabulary performance at the beginning of the experiment. The results of the pre-test concerning the mean scores of the two groups are shown in table (1).

Table (1):

The T-value of the Difference in the mean scores between the experimental Group and the control Group on the pretest

Group	N	Neon	SD	TT	T	DF	Sig.
Group	N	Neon	SD			DF	Sig.
Experimental	25	6.08	1.63	0.64	0.64	48	0.53
Control	25	5.98	1.63			48	0.53
			1.69				
			1.69				

Results in table (1), Shows, that the mean score of the experimental group was 6.08 with a standard deviation of 1.63, and the mean score of the control group was 5.98 with a standard deviation of 1.69. It also shows that the difference in the mean score between the

experimental group and the control group was not statistically significant ($t = 0.64$, $p = 0.53$). This indicated that two groups were equivalent in vocabulary achievement before conducting the experiment. After conducting the experiment, a post-test was administered to the two groups of



the study to measure their lexical performance. The results of the analysis of the post-test scores

are in table 2 below.

Table (2):

The T- value of the Difference in the mean scores Between the Experimental group and the control Group on the post-test.

GROU	GROUP	N	Neon	SD	T	DF	Sig	
Experi	Experimental	25	8.64	1.16	4.36	48	0.00	
	CONTR Control				25	6.96	1.54	
							* Significant $\alpha=$	0.05

Post-test results in table (2), Confirm that the mean score of the experimental group was 8.64 with a standard deviation of 1.16, while the control groups mean score was 6.96 with a standard deviation of 1.54. It also shows that the differences in the mean scores between the experimental group and the control group was statistically significant ($t=4.36$, $p=0$, 00). Therefore, the hypothesis of the study was accepted.

Discussion

The statistical analyses of the research question indicate that utilizing semantic mapping in vocabulary instruction enhances word learning and vocabulary retention for the experimental group. The t value observed (8.64) was greater than the critical value of t for the control group (6.96). This indicates that the experimental group demonstrated significant superiority over the control group with regard to the scores obtained in the post-test. In other words, the results are in favor of employing semantic mapping strategy in teaching words. This means that employing semantic mapping in EFL classes is worthwhile, and more effective than employing the traditional vocabulary teaching techniques.

The feedbacks from both the instructors and the learners confirm the time-costliness of semantic mapping activities. Some learners and even instructors expressed their doubt regarding the

worthiness of employing semantic maps to teach vocabulary. They claimed that the traditional methods would take much less time in comparison, and thus, they would have more time to concentrate on texts and reading skills. These views, however, are at least partially rooted in their super-ordination of the reading skill to lexical wealth. Contrary to their feelings, we realize that although semantic mapping is costly in terms of both teachers' and learners' in-class time, it can be very beneficial in that students learn a good deal about new words and the interrelationships of the concepts associated with the words in their long-term memory furthermore, the cooperative teacher who taught the experimental group reported that semantic mapping strategy stimulated students' active participation, students were highly motivated since the students themselves carried out all of the activities individually, in pairs or in groups. Mean while, their teacher played the roles of advisor and facilitator of learning by circulating around encouraging and offering help, moreover, the cooperative teacher pointed out that semantic mapping had a powerful impact on students who were anxious to complete it because semantic mapping portrayed lexical relations in anew organized fashion and this also helped them to gain better comprehension of the texts.



Nonetheless, the researcher's observation during the treatment phase in the experimental group was that the learners were very interested in the semantic mapping activities. Direct feedback collected from a random group of learners confirmed this observation. This is in line with the comments of Zaghlool, Z. D. (2004) in which the participants enjoyed the procedure, and it spurred their interest in words and the relationships among words in the texts.

Conclusion

In the light of the findings of the study the researchers' conclusion can be summed up as follows:

1. Vocabulary should be taught in contexts and integrated with the other language skills. Teaching vocabulary in Isolation or via wordlists is fruitless.
2. Vocabulary instruction should be given a high priority in teaching English as a foreign language since it is the cornerstone of communication.
3. Translation of the meanings of new vocabulary items is crutch used by teachers to provide security to their students. But it is useless and harmful for many reasons. In the first place, it does not provide students with the lexical relations among the words. Secondly, it leads to serious inter-language lexical errors which are difficult to eradicate. Thirdly, it hinders students' thinking through eliminating the guessing strategy. As a result, students will be completely dependent on their teacher. Finally, students are deprived of the essential opportunity of using the new lexical items in authentic oral and written situations.

Recommendations

On the basis of the findings, obtained finally, the following recommendations can be stated:

1. Teachers are advised to be eclectic in teaching new vocabulary by choosing the most appropriate strategy; they should vary their strategies according to the difficulty of the word and the level of the class. They can sometimes combine more than one strategy according to the new word.
2. Teachers are encouraged to focus on intentional as well as accidental vocabulary learning.
3. It is recommended that teachers avoid translation as much as possible in teaching new lexical items.
4. Teachers are advised to be committed to teaching new lexical items by preparing additional challenging and motivating vocabulary activities based on semantic mapping strategy.

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