Sudan University of Sciences and Technology

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College of Language

Investigating Strategies of Using Semantic Mapping for Developing Vocabulary Learning

(A Case Study of 3rd Year Bahri Model Secondary School for Girls)

تقصي إستراتيجيات استخدام الخرائط الدلالية لتطوير تعلم المفردات

(دراسة حالة طلاب السنة الثالثة بمدرسة بحرى النموذجية للبنات)

A Thesis submitted in fulfillment of the Requirements for Ph.D Degree in English Language(applied linguistics)

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Dedication

To the soul of my father " may Allah rest him in peace ",

To my mother, husband and daughters.

Acknowledgements

Abstract

This study aimed at investigating Strategies of Using Semantic Mapping for developing vocabulary learning. This study was applied on Bahry Model Secondary School for Girls 3rd year Khartoum State, Bahry Locality. The sample of this study comprised (100) 3rd year Secondary School Students selected randomly as well as (70) English Language teachers of both genders. The study adopted the descriptive analytical and experimental methods, in selection for testing hypotheses which were basically comprised of two groups, while the data were collected through test conducted on students for measuring how is using Strategies of Semantic Mapping on students learning English language vocabulary as a foreign language is more effective than tradional technique in vocabulary learning also the data were collected through questionnaire conducted for teacher's perspective about its effectiveness in vocabulary learning. The Statistical Package for Social Sciences (SPSS) program was used for data analysis. The study reached the following findings: Strategies of Using semantic mapping help students to enrich their vocabulary it can easily help students to acquire more vocabulary, it is also found that it enhances their abilities to learn English vocabulary. The researcher had found that Strategies of Using Semantic Mapping is an effective technique for learning different parts of speech . It also shows that Strategies of Using Semantic Mapping is agog teaching technique for presenting vocabulary lessons, generally the results show that Strategies of Using Semantic Mapping is effective for secondary school students on vocabulary learning. The study recommended the following: Strategies of Using Semantic Mapping is highly recommended to develop vocabulary learning , it also recommended that the Ministry of Education should provide English language teachers with sessions how to use Strategies of Using Semantic Mapping in teaching vocabulary. Curriculum designers can integrate various S.S.M in the textbook which will facilitate better comprehension of students vocabulary learning. Teachers should encourage using pair work and group work as part of the Strategies of Using Semantic Mapping to provide opportunities for meaningful interaction and facilitate vocabulary learning. The study was ended with suggestions for further studies.

Abstract

(Arabic Version)

المستخلص

هدفت هذه الدراسة إلى تقصي استخدام استراتيجيات الخرائط الدلالية لتطوير تعلم مفردات اللغة الإنجليزية. تم تطبيق هذه الدراسة في مدرسة بحري النموذجية الثانوية بنات بولاية الخرطوم محلية بحري تكونت عينة الدراسة من (مئة طالبة) في المستوى الثالث تم اختيارهم عشوائيا وأيضا (سبعين) من معلمي اللغة الانجليزية من الجنسين. تبنت الدراسة طريقة الوصف التحليلي وأيضا الطريقة التجريبية لاختبار الفرضيات التي تتكون من مجموعتين بشكل أساسي وقد تم جمع البيانات من خلال اختبارات اجريت للطلاب لقياس مدى فعالية أثر استخدام الخرائط الدلالية على تعلم الطلاب لمفردات اللغة الانجليزية كلغة أجنبية وإنها طريقة أكثر فعالية مقارنة بالطريقة التقليدية. أيضا استخدم الباحث استبانة المعلمين لجمع البيانات من وجهات نظرهم حول فعالية استخدم الخرائط الدلالية اللفظية لتعلم المفردات اللغوية، استخدم الباحث البرنامج الاحصائي لتحليل البيانات وتوصلت الدراسة لعدة نتائج أهمها: إن استخدام الخرائط الدلالية تساعد الطلاب لتغذية ذخيرتهم اللغوية كما أنها تساعد في اكتساب الكثير من المفردات اللغوية. وجد الباحث أن الخرائط الدلالية هي فعالة في تطوير اجزاء الكلام لدى الطلاب، تشير الدراسة إلى أن طريقة الخرائط الدلالية فعالة في عرض دروس المفردات اللغوية وأنها طريقة فعالة لتعلم المفردات اللغوية لدى طلاب المرحلة الثانوية.أوصت الدراسة بالآتي: استخدام استراتيجيات الخرائط الدلالية لتعلم المفردات الانجليزية، على وزارة التربية مد معلمي اللغة الانجليزية بدورات تفيد في كيفية استخدام الخرائط الدلالية في تدريس المفردات , على مصممي المناهج دمج أنواع متعددة من استراتيجيات الخرائط الدلالية في المنهج الدراسي والتي بدورها تسهل عملية الاستيعاب لدى الطلاب. ينبغي على المعلمين تشجيع العمل الزوجي والجماعي كجزء من استراتيجيات الخرائط الدلالية اللفظية لتوفير فرص التفاعل الهادف لتسهيل عملية التعليم و قد ختمت الدراسه ببعض الاقتراحات لدراسات لاحقه.

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List of Abbreviations

The words	The Abbreviations
Strategies of Semantic Mapping	SSM
English Language Teaching	ELT
English for Specific purposes	ESP
Statistical Package foe the Social Sciences	SPSS
Vocabulary Learning Strategy	VLS
Semantic Mapping	SM
Word Mapping	WM

Chapter One

Introduction

Chapter One

Introduction

1.0 Background about the study

Language is the greatest gift given to people. It is their media in expressing their 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 we can go deep in the past and know the present and future.

Until quite recently, vocabulary study has not been not considered as an important part of second language research as pertinent to teaching and learning (Maiguashca, 1993 and Meara 1981 cited in Kojic- Sabo and LighBown, 1999). People 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 the 1990s that vocabulary "assumed its rightful place as a fundamentally important aspect of language development,"(Nunan, 1999:103). It has been found that students need to have basic knowledge of a vocabulary to improve language proficiency.

vocabulary size refers to the number of words of which a learner has at least some superficial knowledge of meaning Researchers use vocabulary levels Test (VLT) to measure the learners size of vocabulary knowledge . The test contains items from the 200, 300, 5000 and 10000 most frequent words, 300,5000and 1000 academic vocabulary. It has been accepted by a number of second language researchers as an appropriate and valid measure of vocabulary size.

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 .Hedage (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 improving 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.

1.1 Statement of the Problem

Vocabulary has been and will continue to pose the most serious problems to most students. A number of research has 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.

1.2 Significance of the Study

This study derives its significance from the very issue it seeks to explore, that is the use of semantic mapping to reinforce vocabulary learning amongst secondary school girls' students.

The importance of vocabulary in English   learning process has been widely recognized. Much of the research indicates that expanding language vocabulary has been one of the objectives of many EFL learners. When learning English, Students   also try to improve their vocabulary knowledge. However, a student has to cope with many difficulties in learning vocabulary, especially in memorizing and recalling the word meanings. Poor mastery of vocabulary makes an obstacle for them in having access to language knowledge and actively take part in classroom activities.   Definitely, they become highly stressed and frustrated upon failing to cope with their peers. They cannot get words into long-term memory and recall them when necessary. Although they

spend most of their time learning vocabulary, the result is disappointing and one of the reasons for students low vocabulary retention and retrieval can be addressed as their learning habits; their learning habits such as writing down words on a piece of paper, learning words by heart, heavily depending on word lists in textbook, passively waiting for teachers explanation for new words lists in textbook, passively waiting for teachers explanation for new words seem to be ineffective and make them bored with learning vocabulary. In order to memorize new items, students often use rote memorization techniques. As they reported, they used to write down the words for several times, to speak aloud the words and to make sentences with words. They admitted that they fail to recall most of the words they had learnt before as there were no clues. It can be seen that student's bad memory is due to lack of appropriate vocabulary memorizing strategies.

Tutors are obliged to provide their students with sets of effective language learning strategies particularly in relation to vocabulary retention and memorization.

1.3 Objectives of the Study

The current study sets out to examine a number of objectives in alignment with semantic mapping strategies and their effectiveness in vocabulary learning and retention:

(i) To determine if the strategies of semantic mapping can be applied to learning all parts of speech (nouns… verbs …adjectives etc)

(ii) To find out whether or not that the use of semantic mapping can supplement words memorization

(iii) To probe tutors or teachers' stance towards the use of semantic mapping as an effective learning strategy.

1.4 Questions of the Study

To get along with this study, a number of questions have to be posed as evident in the following:

1. To what extent can semantic mapping strategies help students to enrich their vocabulary?

2. How effective is the use of semantic mapping strategies in learning different parts of speech? (Nouns, verbs, adjectives etc).

3. To what extent are teachers of English Language aware of the use of the importance of using semantic mapping strategies in learning vocabulary?

1.5 Hypotheses of the Study

This study sets out to test the following hypotheses:

1. Semantic mapping strategies help students significantly to enrich their English vocabulary .

1. Semantic mapping strategies can be used for learning different parts of speech.(Nouns, verbs, adjectives etc)

2. Teachers of English language are not aware of the importance of using semantic mapping strategies in learning English vocabulary.

1.6 Research Methodology

The type of methodology to be used here is the descriptive and analytical one. The methodology will focus on description which begins with the population and sample. subsequently, the study will be supplemented with the results and suggestions for improving the study. The experimental approach of the material and instruments will be divided into three main topics: the method of corpus compilation and word selection, classroom materials and research instruments, and then the design and validation of the rests. Teachers field notes, questionnaire will be designed for the teachers of this quasi-experimental study will be in to two intact groups. The control group will comprise of 100 students, and

will be taught in the traditional way of presenting the vocabulary items, on the other hand the experiment group will consist of 100 students, and this group will be taught by the use of semantic mapping technique.

1.7 The Limits Of The Study

This study was limited one governmental model secondary school for girls in Khartoum State Bahry Locality ,the study was conducted on a sample of(100) 3rd year students during the Academic year2017-2018 and (70) English Language teachers.

1.8 Definition of Basic Terms

Below is provided a set of definition for the key terms used in the present research:

(i) Semantics

Semantic is the technical term used 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 of meaning by C,K, Ogden & I.A, Richards. First published was in 1923.

(ii) Semantic mapping

The terms semantic mapping has been used to refer to several notions, one of which is the building up of "diagrammatic map showing the relationship between vocabulary suggested by the teacher suggested by the learners and found in a reading text" (Nation, 1990:125).

(iii) Word Mapping

An effective method by which students enhance their understanding of key words by graphically mapping them.

1.9 Summary of the Chapter

This chapter provided a detailed description of the background of the study with the same focus on the definitions of the problem and the research methodology.

Chapter Two

Literature Review And Previous Studies

Chapter Two

Literature Review And Previous Studies

2.0 Introduction

This chapter deals with two main parts: Part one is related to the theoretical framework on the use background on the concept of semantic mapping. It includes, vocabulary, semantics and word . Part two, deals with the previous related studies presented in this area.

The review related to the various variables related to the study is presented under the following subheadings. They are as follows:

2.1 Various 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 include words that we recognize and use in listening and speaking. Printed vocabulary include words that we recognize and use in reading and writing. Second words knowledge also come 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 communicate with each other in any particular language.

2.2 More about vocabulary

Vocabulary is defined as a word in a specific language or free standing items of language that have meaning (McCarthy 1990) Penny Ur (1996) defined vocabulary roughly as" the word we teach in foreign language " she also suggested that a new item of vocabulary may be more than a single word, a compound of two or three words (e.g. post office, mother-in-law) and multi word idioms e.g. call it a day).

Graves (2000, as cited in Omer, 2017) defines vocabulary as the entire stock of words belonging to a branch of knowledge or known by an individual. He also states that the lexicon of a language is its vocabulary – which includes words and expressions. Krashen (1998, as cited in Omer, 2017) extends Graves definition further by stating that lexicon organizes the mental vocabulary in a speaker's mind. An individual's mental lexicon's is that person's knowledge of vocabulary (Krashen, 1998, as cited in Omer, 2017) Miller, (1999, as cited in Omer, 2017) states that vocabulary is a set of words that are the basic building blocks used in the generation and understand of sentences.

According to Garden or (2009, as cited in Omer, 2017), vocabulary is not only confined to the meaning of words, but also includes how vocabulary in a language is structured: how people use and

store words and how they learn words and the relationship between words, phrases and categories of words. (Graves, 2000, as cited in Omer, 2017) regarded the importance of vocabulary, Krashen (1989) pointed out that " a large vocabulary is, of course, essential for mastery of a language as " without vocabulary, nothing can be conveyed " Wilkins, 1972).

Rubin and Thompson (1994) considered the significant role of vocabulary in communication as stating that " one cannot speak, understand, read or write a foreign language without knowing a lot of words. Vocabulary learning is at the heart of mastering a foreign language ".

2.3 Nature of Vocabulary Knowledge

Having a limited vocabulary is like a barrier that prevent students from learning a language (Norbet Schmit, 2000: 22). Without a sufficient vocabulary ,some one cannot communicate effectively or express ideas because we think with words. Words help us communicate our ideas and they also help us to understand other people's ideas. It also implied that vocabulary takes an important role in improving our kills in English . A good vocabulary goes hand in hand with someone ability to think logically and to learn easily and quickly.

Vocabulary consists of knowing how to use words , which represent image,(Josef,et al,197   4:26) .It can be concluded that a learner of a foreign language will speak fluently and accurately, write easily, and understand what he /she reads or hears if he / she has enough vocabulary and has a capability of using it accurately.

Vocabulary is the key to student understanding what they hear and read in school , and to communicate successfully with other people ,(Josef, 1974:14).For this reason it is very important for the student to build up quickly a large store of words. Research studies have shown the strong links between having an extensive vocabulary and achieving school success.(htpt:l// esl.fis. edu/ prtents/ advice/ vocab. htm).

Vocabulary is central to language and is great significance to language learning, Murcia a says that " words are perceived as the building blocks upon which knowledge of the second language can be built." (Heinle, 1991: 296). It is implied that in learning vocabulary, students a are ought

to practice it very often and they cannot practice or build that language if they are lock of vocabulary.

Many definitions can be found about vocabulary from some expert, but the writers only choose several of them which are important to discuss. Vocabulary is a core component of language proficiency and provides much of basis for how well learners speak, listen ,read and write. Without an extensive vocabulary and may discourage from making use of language opportunities around them." (Richard as people may know, is just a word but actually vocabulary not just builds from a word but also from another word that convey one meaning.

Vocabulary can be defined roughly, as the words we teach in the foreign language. However, a new item of vocabulary may be more than a single word for example ,*post office and mother- in -law* which are made up of two or three words but express a single idea . There are also multi- word idioms such as *call it a day*, where the meaning of the phrase cannot be deduced from an analysis of the component words. A useful convention is to cover all such cases by talking about vocabulary ‹items ›rather than‹ word ›(Pennyur, 1999:60).

Vocabulary is a group of words on a certain language as a part of teaching- learning as a foreign language. Words mean the memory of the situation in which they have been observed and understood , brought out by the context in which they are used , (Robert Lado, 1994:118).It means that to know a word is to be able to use it or to understand in situation in which the person has not experienced it before.

In language learning and teaching , vocabulary is the important as a spect besides other language component such as grammar and pronunciation. Factor in all language teaching , students must continually be learning words as they learn structures and they practice the sound system ,(Edward, D.A, et al 1977: 149).   Webster ninth collegiate Dictionary is:

a. A list of words and phrase, abbreviation inflectional form. Usually arranged in alphabetical order defined or otherwise identified as in a dictionary of glossary.

b. An interrelated group of non-verbal symbols ,signs, gestures, excused for communication or expression in a particular art, skill etc.

Hatch and Brown define vocabulary as a list or set of words for a particular language or a list or set of words that individual speakers of language might be use. (Evelyn, H. & Cherry. B. 1995:1).

It can be concluded from all definition above that vocabulary is a set of words which use in a language.

Thus, vocabulary is one of the component of a language where I no language without words. From these statements , vocabulary mastery and development of the student is important in language teaching beside grammar and pronunciation to reach the goal of English learning and teaching itself .

2.4 The importance of Vocabulary

The importance of learning vocabulary in foreign language teaching cannot be neglected at all. Although less attention was given to the vocabulary in the past, many experienced teachers of English as a second or foreign language have realized that knowing a language means knowing its vocabulary as well. According to Zim (1984 as cited in Emor, 2012) they are convinced that the necessary part of any language learning and particularly is vocabulary development, where academic study skills are concerned. Therefore, we may assert that learning a foreign is basically a matter of learning vocabulary of that language. Not being able to find the word that you need to express is the most frustrating experience when speaking in another language. The degree of proficiency in a language is related to the words you know. The more

words you know, the better you can express and communicate with others. Without words people cannot use the language effectively.

Vocabulary knowledge helps beginning readers to decode or map spoken sounds to the words in print. If the children have the printed words in their oral vocabularies, they can get more easily and quickly to sound out, read and understand the words. Therefore, learning vocabulary needs some methods or techniques such as Semantic Mapping Strategy to make the students easy in mastering English vocabulary.

Vocabulary consists of a series of interrelating systems and a random collection of items. There seems to be a clear case for presenting items to students in a systematical manner. Based on Schmill (2000, as cited in Thuy, 2010) there are two examples of vocabulary, first, the meaning of a word depends on some extent of its relationship to other similar words, often through sense relations and second, word in a word family are related to each other through inflectional and derivational affixes in Semantic mapping, words are grouped in the former way

Nguyen and Khuat (2003) also accepted that vocabulary knowledge play an important role in learning a foreign language. Vocabulary is one element that links the four skills ,speaking , listening , reading and writing all together. Vocabulary is a core component of language proficiency and provides much of the basis for how well learners listen, speak, read and write (Richard and Renandya , 2002).

In fact, vocabulary is a means to support communication. It is necessary component of language instruction .In order to communicate well in a foreign language , learners should acquire an adequate numbers of words and should know how to use them accurately . When emphasizing the importance of vocabulary in communication , Della and Hocking (1992) also claimed that with a little smooth communication , but without vocabulary , it is difficult for others to understand the information the

learners want to express . For this reason , a lack of good grammatical structures may not interrupt communication . However, if we lack vocabulary , there is no successful communication . With a good knowledge of vocabulary , learners may feel confident in communication and it contributes to the success in communication . However , the question to arise is which words are necessary for learners to know and how to remember these words .

Nguyen and Khuat (2003) also accepted that vocabulary knowledge plays an important role in learning a foreign language. Vocabulary is one element that links the four skills of speaking, listening, reading and writing all together. Vocabulary is a core component of language proficiency and provides much of the basis for how well learners listen, speak, read and write (Richard and Renandya, 2002) in fact vocabulary is a means to support communication. It is a necessary component of language instruction. In order to communicate well in a foreign language, learners should acquire and adequate number of words and should know how to use them accurately. When emphasizing the importance of vocabulary in communication, Della and Hocking (1992)

Claimed that with a little grammar, the learners can have a little smooth communication, but without vocabulary, it is difficult for others to understand the information that the learners want to express. For this reason, a lack of good grammatical structures may not interrupt communication. However, if we lack vocabulary, there is no successful communication. With a good knowledge of vocabulary, learners may feel confident in communication and it contributes to the success in communication. However, the question to arise is which words are necessary for learners to know and how to remember these words.

2.5 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 them 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) 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.

2.6 The Concept of Semantic Mapping

In language learning, the term semantic mapping is usually used to refer to brainstorming association which a word has and then diagramming the results (Sok man, 1997: 250). The concept of semantic mapping in this study, however, differs from this definition it refers to the identification of whether given semantic features are inside or outside the semantic boundary of a word.

Various terms have been used in the literature to refer to the term semantic mapping. A very common term used in psycholinguistics is from meaning mapping (Jiang, 2002; Kroll and De Groot, 1997) De Groot and Comijs (1995) use the term lexico semantic organization, Henriksen (1999) uses the term semantizaion, while Zhang (1995) uses the term mental organization. But, what is semantic mapping?

A map, according to the Cambridge International Dictionary of English (1995) 863) means " a drawing of (part of) the earth's surface showing the shape and position of different countries, political boarders, natural features such as rivers and mountains and artificial features such as: roads and buildings ". The Oxford Advanced Learners Dictionary   (1996) uses the expression representation on paper " for the term " drawing " in the Cambridge definition. There is some Parallelism between the concept of map " given in the above definition and the concept of semantic mapping in that both share the components " representation " " features " and " boundaries ". A word is like a geographical area. A geographical area has a name and boundary and

within its boundary there are natural and artificial features. The state of Penang for example, has its boundary and there are natural and artificial features which are specific to the state of Penang. Outside the boundary,

there are also geographical features, but they are not part of the state of Penang. Similarly, a word has a form and meaning boundary and inside the meaning boundary there are semantic components or features which constitute the meaning of the word. Outside the meaning of the word boundary, there are also semantic components but they make up the meaning of other words within the respective language. The primary task in vocabulary acquisition is seen as involving the identification of the boundaries between lexical items, the identification of the meaning or conceptual features particularly those within the boundaries and the adjustment of the boundaries as more words that are semantically related are encountered and learned (Sonaiya, 1991, Jiang 2002; Ljaz , 1986). This is referred to as semantic mapping: the identification of semantic or conceptual features and the assignment of these features to within or outside the meaning boundary of a word. For instance, in the semantic mapping of the word assassinate learners need to identify the core meaning of the word, i.e. Cause someone to become dead, and the semantic features that distinguish it from other words, the most typical features are that the patient subcategorized by the verb assassinate must be (+ animate) (+ human) (+ politically) important). A less typical but not less important feature is that it requires a (+ animate) (+ human agent).

2.7 Various Definitions of Semantic Mapping

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 is 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 components of the story.

According to Mohdjunaid (2005) semantic mapping is defined simply as a visual strategy for vocabulary expansion and extension of knowledge by displaying in categories words related to one another. He also added that semantic maps are graphics that can be used to represent ideas, words or other items, connected to and arranged around a central key word or idea of the text and depict relationships of the different components of an idea to the main idea, that is of the part to the whole.

Turuk (2012) states semantic mapping is a process of constructing visual display of the categories and their relationships. It is a categorical structuring of information in graphic form. In teaching vocabulary it can be used as a tool for students to discover the relationships between vocabulary words – in this strategy students are asked to brainstorm and think of ideas or words related to the central word. For example, the teacher gives " elephant " as the central word then he / she asks the students to think of the word. Students may come up with words such as big, trunk, four legs, brown, land and so on. After that teacher and students categorize the word. The categories could be the habit, size and physical characteristics.

According to Stoller (1994, as cited in Krisnawati, 2014), a semantic map is defined as the graphic display of information within categories related to the central concepts which stimulates meaningful word associations. It includes a key concept or main idea, with categorized concepts related to the key concept. The categories related to the central

concept and associated among words which are presented visually in a diagram or map.

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 clear evidence. Semantic mapping show 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	On land	In the water	In the air
Bicycle	-	+	-	+	?	+	-	-
Car	-	-	+	-	+	+	-	-
Boat	-	-	-	?	+	-	+	-
Plane	-	-	-	-	+	-	-	+
Unicycle	+	-	-	+	-	+	-	-
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)
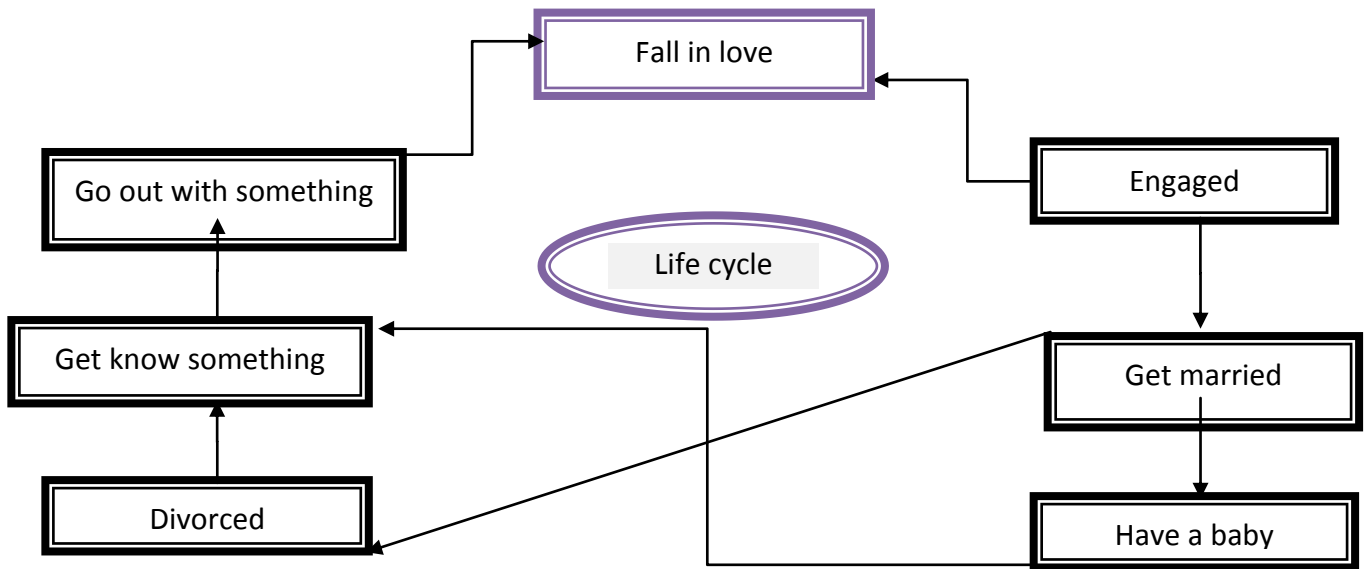
Figure (2): semantic mapping for " *human life cycle* " (Grain &Redman, 1986).
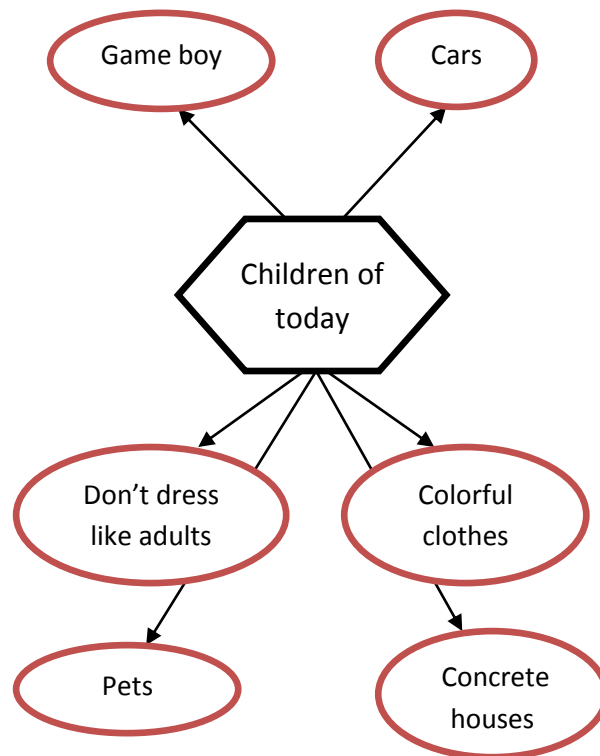
Figure (3): semantic mapping of the word children of today. (Web Inquiry Projects – Teacher Template).
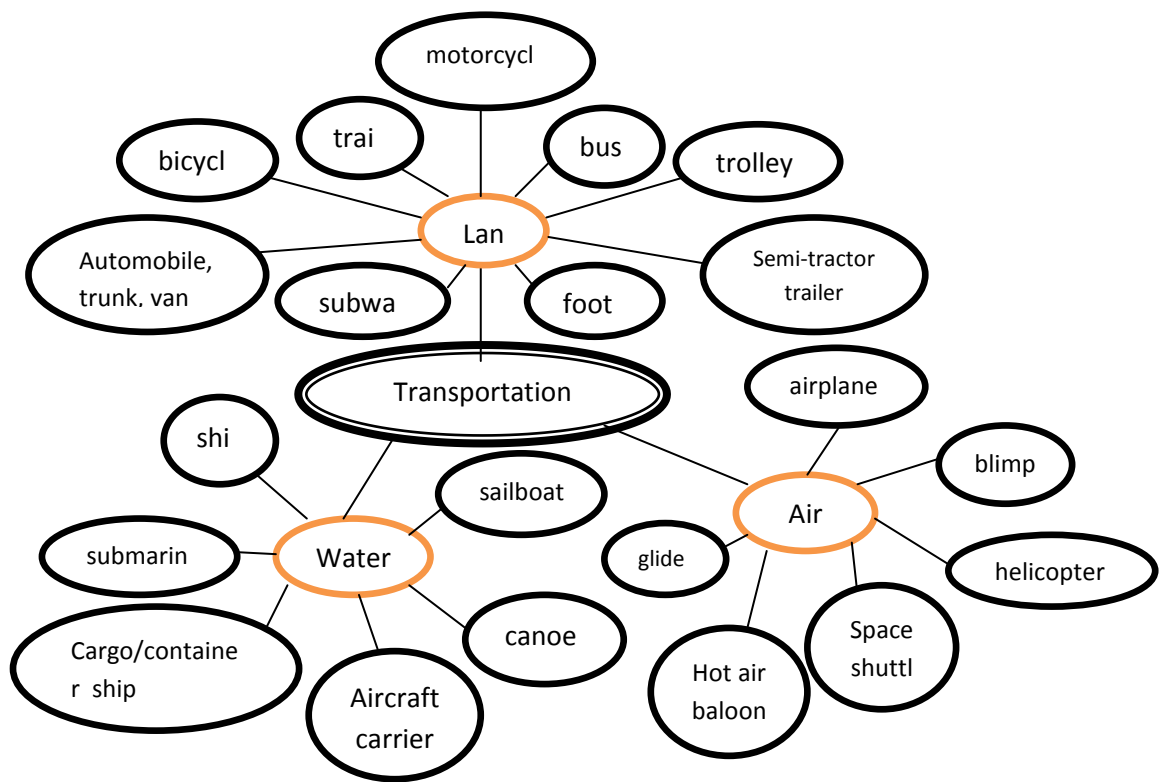
Figure (4): Semantic map for items of transportation " instructional activities that allow for a visual display of words and promote students' comparing and contrasting of new words to known words can be a beneficial means for inc their vocabulary knowledge".
(Rupley, Long ,& Nichols, 1998).
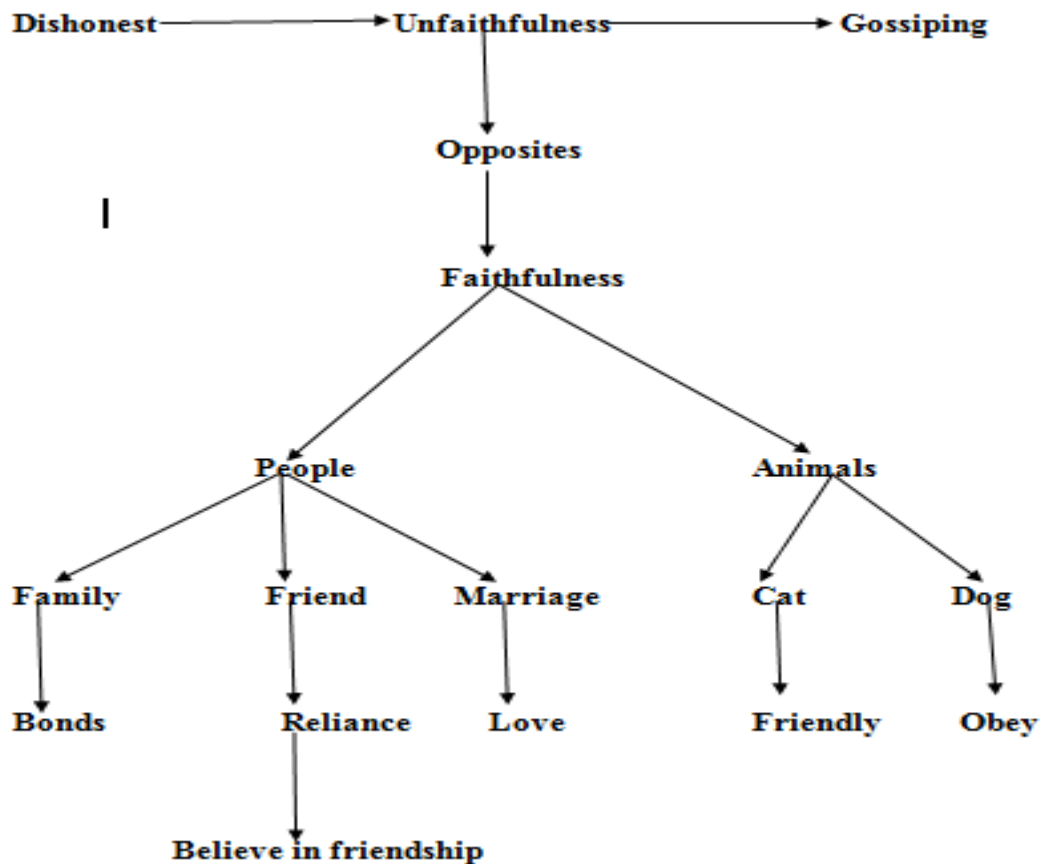
Figure (5): Semantic mapping for word " Unfaithfulness " (Sokmen, 1997:250)

2.8 History of Semantic Mapping

According to Hanf, (1971) was the first to develop the mapping procedure; it was originally designed to improve the teaching of study skills. However the nation of semantic mapping predates Hanf's publication.

In 1963, Ausubel asserted that when individuals are presented with not be explicitly understood until they are linked in a meaningful way to preexisting concepts. In other words Ausubel claimed that background information was a necessary prerequisite to the addition of new concepts and vocabulary.

Similarly reading theories have linked the process of reading comprehension to building of bridges between the new and unknown (Pearson and Johnson, 1978). Since the 1970s, a number of schema researchers have demonstrated that learning background knowledge of text structure helps to build comprehension (Carrell,1984). Certainly, one of the major benefits of semantic mapping is that is helps to build schema; however, this is only one of many possible benefits of using semantic mapping activities in reading classroom.

During the 1980, there was an explosion in research related to semantic mapping that greatly increased our knowledge of the broad application of mapping strategies (Carrel et al, 1984).

Recently, semantic mapping has been used in variety of ways, including the following:

It has been used as a technique for increasing vocabulary and improving reading comprehension (Carrel et al,1971) , as framework for identifying the structural organization of text. (Sinata et al, 1986) as a link between

21

reading and writing instruction and as an assessment techniques (Flavell and Markman, 1992)

There are a number of to create words maps Widomski (1988) promote a combination of semantic mapping and directed reading activities to enable reader to make use of schemata so that they might achieve a fuller understanding of text. Widomski (1988) says her word webs always consists of the following parts; a core question (Which could be the main idea of the text, for example), the stand supports/ supporting details (the graphic representation of connections or line drawn between words and phrases on a semantic).

Semantic mapping a activities are carried out during the pre-reading phase of a lesson to activate learners schemata and to introduce them to key vocabulary from the text. As pre-reading activity, instructors can core questions to enhance the comprehension of vocabulary.

Heimlich and Pittelman also encourage post reading mapping. During the post com add new words, concepts and even categories to their pre-reading maps.

The final phase of map construction comes when the learners are asked to recall the details of a text and to discuss and graph new information in to their preexisting maps.

Finally, Flavell and Markman, (1992) contend that semantic mapping is useful for evaluating student gain in understanding throughout the learning cycle. They go on to state that the identification of misunderstanding early on allows teachers to redirect student's misconception. Flavell and Markman assert that, as only reveal student perceptions but also relate misunderstanding of core ideas.

2.9 The Nature 0f Semantic Mapping

Zaid explains semantic mapping has been showing to be a beneficial learning / teaching technique for native speakers of English at all grade

levels in regular and remedial classroom as well as for those who are learning disabled. He added that students who use semantic mapping manifest considerable improvement in reading comprehension, written expression and vocabulary development. He suggested some areas of correlation between what a semantic mapping activity does and the principles and objectives of communicative language teaching (C L T). For the students, the map was providing a graphic conceptualization of their randomly given ideas. There are three places in a lesson where semantic mapping may be used as he clarified.

a) As a pre –assignment a strategy to activate students' prior knowledge or to help the teachers in assessing the students' readiness to do the assignment.

b) As strategy to allow the students to recall what they are learning during the assignment.

c) As a post – assignment strategy to allow them to integrate or synthesize what they have studied.

According to Harvey, etal (2000). 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 tail found among semantic mapping strategy is that they show the order and completeness of students' thought process – strengths and weaknesses of understanding become evident. Many semantic maps show different aspects of an issue in close and the big picture, since many semantic maps use short words or phrases, they are ideal for many types of learners' in studying English language readers with intermediate

Proficiency. Tree maps can be used to show classification, analysis, structures, attributes, examples and brain storming.

Estes explained that: semantic mapping is a strategy for graphic 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:

a) Association of class; the order of things the concept falls into.

b) Association of property; the attributes that define the concept.

He continued that the major purpose of these formal relations and thus to provide themselves basis for understanding what they are about to read and study. Comprehension can be thought of as the elaboration and refinement or 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.

2.10 Kinds of Semantic Mapping

Jones states that: semantic mapping is a visual strategy that shows the major ideas of a certain topic and how they are related in. There are several semantic mapping such as: word mapping, concept mapping and story mapping.

a) Word mapping is an effective method, by which students enhance their understanding of key words by graphically mapping them.

b) Concept mapping is a way to organize information about a problem or subject. It is considered of nodes and labeled lines. Nodes are usually depicted with circles drawn around the term or concept. In addition, the lines between nodes show which concepts are related.

c) Story mapping is a visual representation of the logical sequence of events in a narrative text. The elements of the characters, setting, major events, problems, theme, etc.

From the opinion above, can be explained that semantic mapping is a strategy teachers that can fish student creatively in found or determined dependability was between one topic pass by some related to words topic is referred. With this strategy also, students can develop their ability in

thinking. For example, by depicting a hospital, than students can mention any that exist in hospital like, doctor, nurse and patient. Based on the several kinds of semantic mapping above, the writer only uses word mapping. It is one of the effective methods to increase students' vocabulary mastering.

2.11 Semantic Mapping Strategy

According to Master, et. al, (1993:34) states that the use of strategy. They define mapping technique as being *" used to motivate and involve students in thinking, reading and writing aspects. It enhances vocabulary development by helping students link new information with previous experience".* Joes (2006:96) define semantic as " *a visual strategy which shows the major ideas of certain topic and how they are related".* The instructional sequence of semantic mapping are as follows:

2.11.1 Procedures of the Semantic Mapping Strategy

The framework of semantic mapping include: the concept of word, two category examples, and other examples. This is a very interactive process and should be modeled by the teacher first. The steps involved in semantic mapping are in the following points:

1- The teacher selects a word or concept central to the topic.
2- The teacher displays the target word or concept.
3- The writer invites the students to generate as many words as possible that relate to the target word.
4- The writer asks the students to write the generated words in categories.
5- The writer asks the students to construct a map from the list.
6- The writer leads the class in a discussion that focuses on identifying meanings and uses of words, clarifying ideas, high lighting major conclusions, identifying key elements, expanding ideas and

summarizing information. The following diagram may have explained the idea.
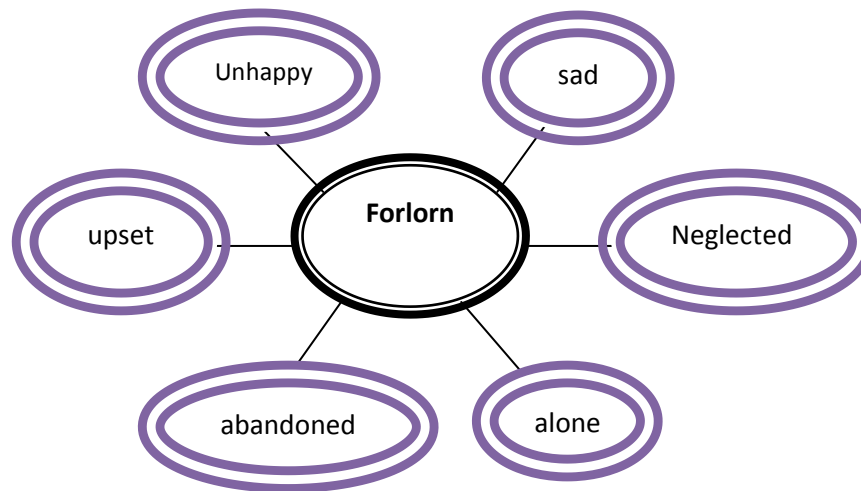
Figure (6):forlorn word web created Tracy Watanabe.

2.12 The Importance of Semantic Mapping Strategy

According to Jones, (2006 :57). " *mentioned 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 during reading or post reading activity. Williams, (1994 :60) said that semantic mapping enable students not only to visualize relationships, but also to categorize them as well as a direct teaching strategy that includes brainstorming and teacher lead discussion, semantic mapping provides opportunities for schema development and enhancement as well as prediction hypothesizing and verification of content when used as pre reading activity. It is also referred to as a web or concept map.

The teacher can introduce semantic mapping to the class in different appearances. They can be shown as circles, squares or ovals with connecting lines. The students read an assigned text.

Through class discussion the teacher writes the main idea of the text in the middle of the top circle that are connected to the main idea by line. This activity can also be used in cooperative groups individually.

Harvey et al, (2000:105) "added that semantic mapping strategies are valuable instructional tools unlike many tools that just have one purpose; semantic mapping is flexible and endless application". One common trait found among semantic strategy is that they show the order and completeness of a student through process-strengths and weakness of understanding become clear evident.

Many semantic maps show different aspects of an issue. Semantic maps use short words or phrases, which one ideal for many types of learners, including English language reader with intermediate proficiency.

Thomas, (1999:76) explains that semantic mapping is a strategy. It assumes that there are multiple relation between a concept and the knowledge that is associated with the concept.

2.13 Conceptual background for the semantic mapping

According to Elkoumy (1999) semantic mapping as picture conceptual relationships and a tool which was mostly used by learners allowing them to scan the range ideas while trying to understand the underlying concept within the text. Heimlich and Pittelman (1986) added a set advantages related to semantic mapping technique, these advantages are motivating students of all grades , integrating thinking with reading, integrating assessment with teaching and making judgments concerning the appropriate instruction needed. It has been used in a variety of ways including the following : it has been used a means of improving the teaching of study skills (Heimlich & Pittleman,1986), as a framework for identifying the structural organization of texts (Clewel & Haidemose 1986)and a assessment technique (Fleener & Marek , 1995) .It can also be said that semantic mapping is a useful way to map out a list of words related to the topic.

Fisher(1995) points out that the term semantic webbing ,semantic mapping , concept mapping , knowledge mapping word mapping , word

webbing , networking, clustering , mind maps, think- links , idea branches , structural over viewing ,graphic organizers , semantic networking or pilot maps have been used to refer to a variety of similar strategies designed to portray, graphically and visually a relationship between concepts or ideas.

Spider map , initiating events , continuum scale compare/ contrast matrix, solution out line, network tree, Human interaction out line, fish bone map and cycle are examples of different types and uses of semantic maps, one type of graphic organizers which were used in the present study (adopted from Hall and Strangement 2002).

Generally speaking to ensure generalization of semantic mapping strategy, according to Hosenfield et al (1981) the teacher should be engaged in four types of generalization activities, orientation, activation adaptation and maintenance. Orientation activities conist primarily of efforts to make students highly cognizant of the need to generalize the semantic mapping strategy, and ensure that students aware of situation and circumstances in which semantic mapping strategy could be used. During activation activities, the teacher reviews with the students the situation where semantic mapping strategy is applicable . The objective is that, students begin engaged in generalization behaviors and that they review, feedback on their efforts to use strategies independently. Students are given

a. A specific assignment to use semantic mapping in a setting other than the one in which the strategy was learned originally.

b. Nonspecific assignment in which they are required to recognize appropriate opportunities to use the writing strategy independently.

Adaptation activities are designed to facilitate students' discussion in other words maintenance activities are designed to ensure that students

maintain their knowledge of what was the strategy, how it was performed and when it should be used.

Considering recall, it is referred to as ability to remember later the material that one has learned or read.

2.14 Goal of using semantic mapping

The purpose of semantic mapping is not drawing a map which represents in absolute terms the relationships between concepts, but the production of a visual design. This visual design can make particular issues obvious and more understandable to the learner(s) who created the map (Cicoganani 2000).

According to Vacek (2009) the use of semantic mapping promotes learning and enhances the use of different critical thinking skills. Like analysis, interpretation, reasoning, explanation and self-organization. One of the most fundamental goals in using semantic mapping is to faster meaningful learning. According to a Ausubel, reception learning can be meaningful when the learners receive new information to enhance individual prior knowledge. So prior knowledge plays a central rolecin meaningful learning (Ching, 2005).

Semantic mapping created by learners express and clarify their alternative conception of a certain topic and can help the teacher to diagnose these alternative conceptions (Ross &Munby, 1991). Novakl (1991) asserted the semantic map strategy is a vital tool for expressing the knowledge held by a group of people as well as for identifying alternate visions and thoughts. Creating semantic mapping is important and substantial because of its ability to clarify the alternative conception learners might have and semantic concept mapping was developed as an educational tool for externalizing and checking on what the learner already knows.

Canas (2003) summarized the educational implementation of semantic mapping in educational conduction as a follows:

1. A scaffold for understanding

2. A tool for reinforcement of educational experiences

3. A tool for developing effective conditions for learning

4. An aid or alternative to traditional writing assignments

5. A tool to teach critical thinking

6. A mediation representation for supporting interaction between learners and teachers.

7. An aid to the process of learning by teaching

- **Constructing Semantic Mapping**

Semantic mapping can be constructed by using diverse ways and a variety of materials. Very young students or children can use picture Cutouts and string tarn among the pictures to show relationships among concepts in semantic maps. Older student can use white sheets of paper and colorful markers, they can also arrange and rearrange index cards or sticky notes that are considered as useful tools for constructing semantic concepts maps. In addition, there are several software packages designed to assist in creating and editing semantic concept maps (Fiedler & Salas, 2003). Novak and canas (2006) suggest a set of simple guidelines in constructing a semantic concept map:

1. At the beginning,, the concepts which should be mapped or formulated as a focus question that the map will answer should be identified.

2. Brain storm the main concepts, themes or other elements that are related and connected to the answer of the focus questions.

3. Put or position the main concept or the side of the work space. You may use post it notes if working on a paper-based semantic concept

4. Build a preparatory map by moving item to the map, grouping key words and related subtopics together. Move things around to get the best.

2.15 Forms of semantic mapping

There are several forms of semantic map that found from enchanted learning.com:(http://www.enchantedlearning.com).

1. Star Diagram
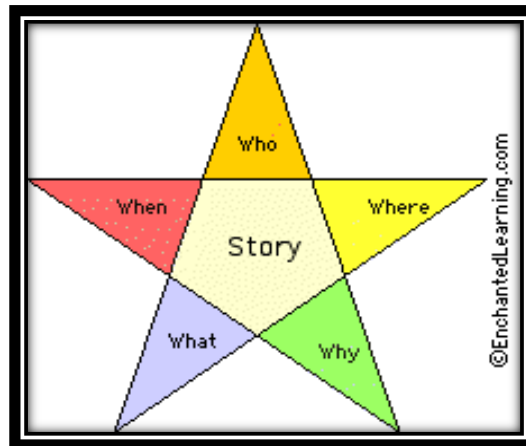
Star diagram are type of graphic organizer that condense and organize data about multiple trials, facts, or attributes associated a single topic. Star diagram are useful for basic brainstorming about a topic or simply listing all the major trails related to a theme.

2. Spider Diagram
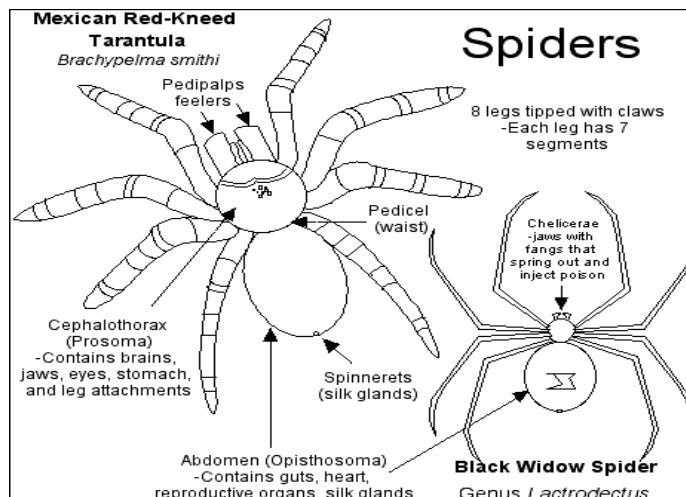
(1,2,3&4 are numbers for aspect)

A spider map (sometime called a semantic map) is a type of graphic organizer that is used to investigate and enumerate various aspects of a

single theme or topic, helping the student to organize their thoughts. It looks a bit like a spider man webs, hence the name.

The process of creating a spider diagram helps the student focus on topic, requires the student to review what they already know in order to organize that knowledge, and helps the student to monitor their growing comprehension of that topic. It also helps point out the areas where the student must investigate more (where web is hard to fill out).

If the topic at hand involves investigating attributes associated with a single topic, and then obtaining more details on each of these ideas, use a spider diagram as your graphic organizer. The spider diagram is like a star graphic organizer with another level of detail.

3. Fishbone Diagram
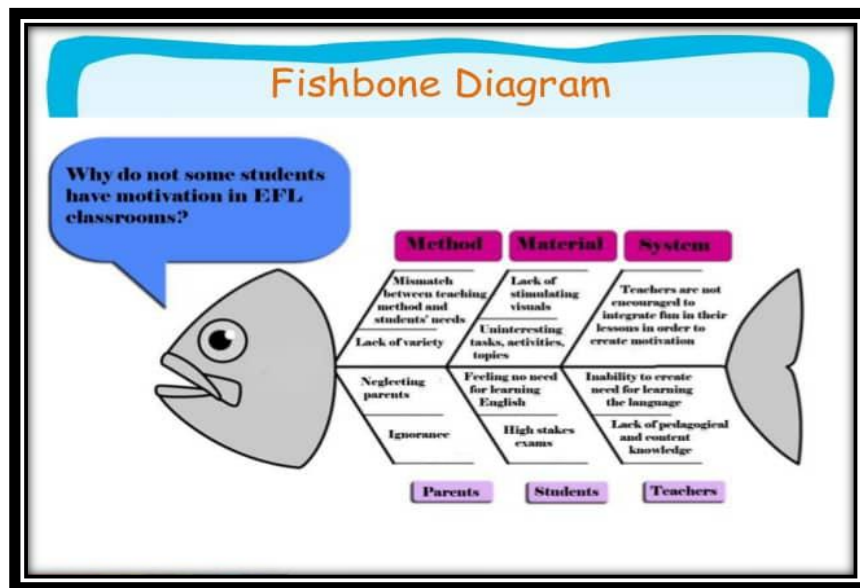
A fishbone map (sometimes called herringbone map) is a type of graphic organizer that is used to explore the many aspects or effects of a complex topic, helping the student to organize their thought in a simple, visual way. The use of color helps make a fishbone diagram as your graphic organizer. The fishbone diagram is like spider map, but it works for more complex topics- topics that require more details to be enumerated.

The process of creating fishbone diagram helps student focus on the topic, requires the student to review what they already know in order to organize that knowledge, and helps the student to monitor their growing comprehension of the topic. It also helps point out the areas where the students must investigate more (where the fishbone is difficult to fill out).

4. Cluster/Cloud Diagram
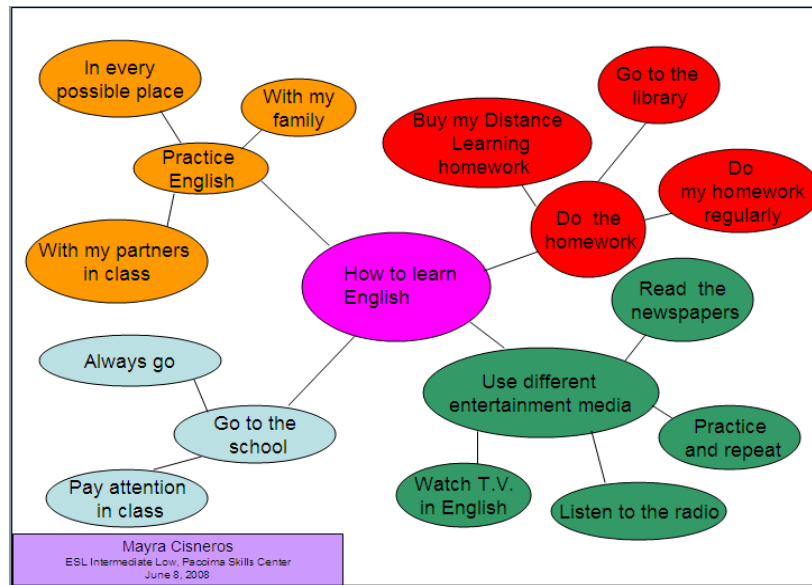
Cluster diagram (also called cloud diagram) are a type of non- linear graphic organizer that can help to systematize the generation of ideas based upon a central topic . Using this type of diagram, the student can more easily brainstorm a theme, associated about an idea, or explore a new subject.

To create cluster diagram, the student first thinks of as many terms or ideas relating to the stimulus topic as possible (and then writes the second-level ideas in circles attached to main topic) —this first step is like creating a star diagram. Then the student explores each of these new seconds-level ideas in turn, and for each, finds as many related ideas as possible ads these third-level terms to the diagram around the idea). If

more detail is desired, the previous step can be repeated for each of third-level ideas (or more).

5. Tree Diagram
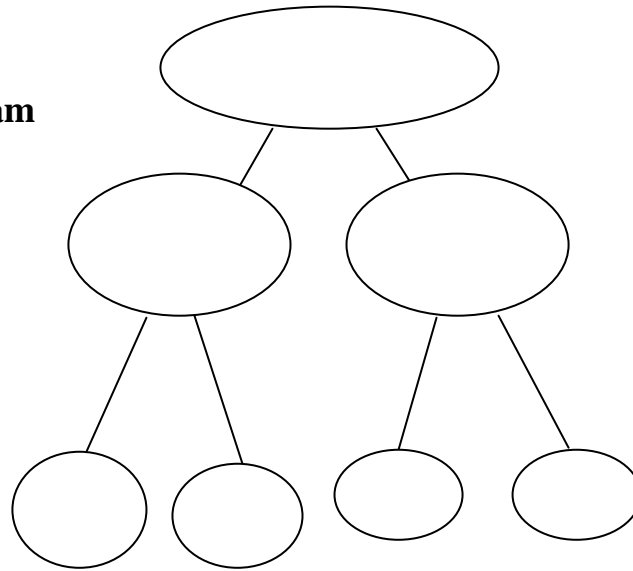
Tree Diagram are a type of graphic organizer that show how items are related to one another. The tree's trunk represent the main topic, and the branches represent relevant facts, factors, influences, traits, people, or outcomes.

6. Chain Diagram
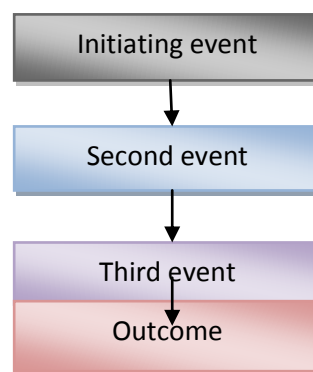
Chain diagram, also called sequence of events diagram, are a type of graphic organizer that describe the stages or steps in a process. The student must be able to identify the first steps in a process, all of the resulting stages in the procedure as they unfold, and the outcome (the final stage) . In this process, the student realizes how one step leads to the next in the process, and eventually, to the outcome. Chain diagram are useful in examining linear cause-and — effect process that unfold sequentially.

7. Cycle Diagram
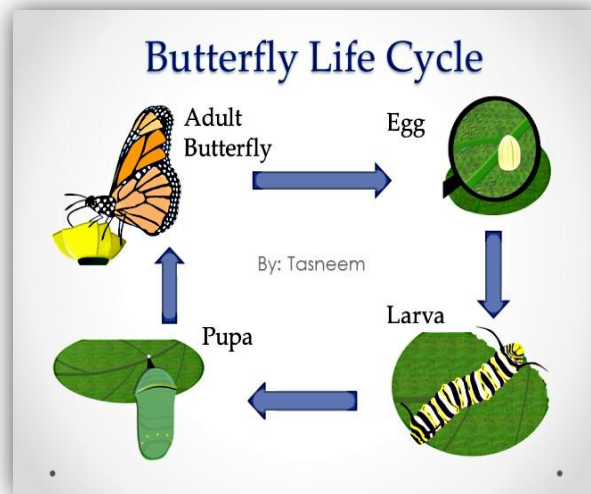
Cycle diagram are a type of graphic organizer that show how items are related to one another in repeating cycle. Use a cycle diagram when there is no beginning and no end to a repeating process. In making a cycle diagram, the student must identify the main events in the cycle, how the interact, and how the cycle repeat.

8. Vocabulary Map Graphic Organizer
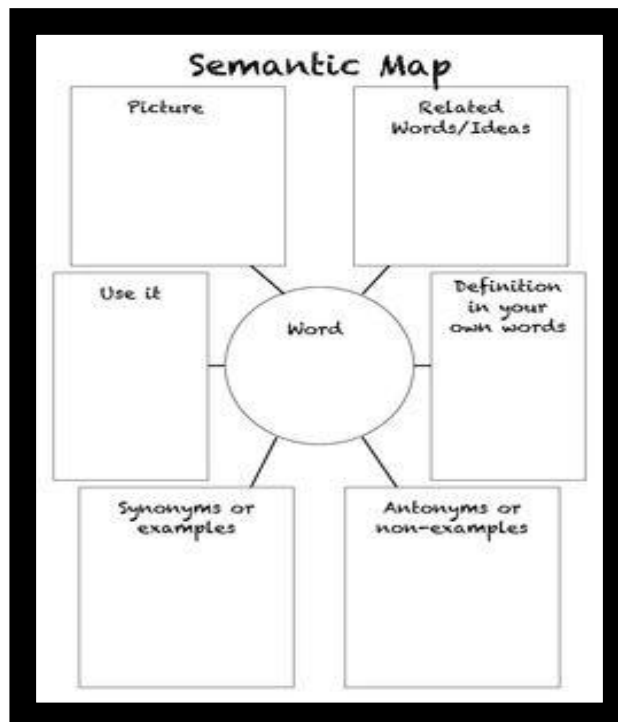
Vocabulary maps are graphic organizer that can be useful in helping a student learn new vocabulary words.

For each new vocabulary words, the student writes the words, its definition, it's part of speech (noun, verb, adjective, adverb, etc.), a synonym, an antonym, draw a picture that illustrates the meaning of the word, and writes a meaningful sentence using the word.

2.16 The Mind Maps Methods

Most of the vocabulary learning approaches are linear. They consist of writing down words and phrases or making endless vocabulary lists. Also both approaches used in the research are of a linear kind. Even though the linear vocabulary organization surely helps to a certain extent, the human mind does not work like this. The human mind works on more levels, engaging many dimensions. Using mind maps gives the learners a chance to organize the vocabulary in a unique and creative way and therefore to learn it more easily. As mind maps follow the way the human mind processes, it may also help in vocabulary learning.

Mind maps were popularized by Tony Buzan (2003); however, the concept of semantic 'networking' and 'concept maps' were used even earlier (Jonassen, Carr, Yueh, 1998). Mind maps are based on the visual representation of a certain topic or idea. The advantage of mind maps is the ability to develop an idea on more levels, being able to add something here and there without any need to rewrite the whole concept. It helps to develop ideas logically and with the use of colors and images it makes the information more transparent. There is also a possibility to connect various pieces of information on different levels and therefore to visualize related ideas, which would not be possible in linear notes. Therefore, mind maps can be used for note making during lectures or at meetings, public speech planning, decision making, problem solving or in this case, for vocabulary organization.

According to Buzan,(2003) the human brain remembers the items that are at the beginning of the learning period, called 'the primacy effect' and items at the end of the learning process, called 'the regency effect'. Then it remembers the items that are connected to some words or patterns already stored in the mind. Finally, the human brain remembers items that are of particular interest to the learner, or items that are in some way outstanding or unique. The primacy and decency effects cannot be avoided or strengthened, however, the connection among vocabulary already known and new words can make a great difference in the learning process. Also making difficult words or phrases unique and more noticeable can make learning of the particular item easier, 'Mind maps combine notes taken from the external environment (lectures, books, journals and the media) with notes made from the internal environment (decision making, analysis and creative thought)' (Buzan, 2003:140). The process of creating the mind map is simple and cad can be done very easily. Mind mapping has only few characteristics, apart for them; there is plenty of space for creativity.

 "The mind map harnesses the full range of cortical skills_ word, image, number, logic, rhythm, color and spatial awareness_ in a single, uniquely powerful technique. In doing s, it gives you the freedom to roam the infinite expanse of your brain". (Buzan, 2003:84)

In language learning process, mind maps can be used in many way, particularly the ability to add some new word which was not included in the learning materials; however, the learner finds it very useful.

   In order to organize given vocabulary and then study from their personalized learning materials. Also the process of the creating of the mind map is very important, because even at this point, the learners are thinking about the links between the word and phrases and are already learning something. Learners can organize the vocabulary according to

various semantic fields or grammatical features. The students engaged in the research were given these mind map samples, so they could get some inspiration and do not lose time while coming up only with the structure. Also the students were encouraged to include Czech equivalents to English words, phrases or images necessary, so they could study more easily from the mind map.
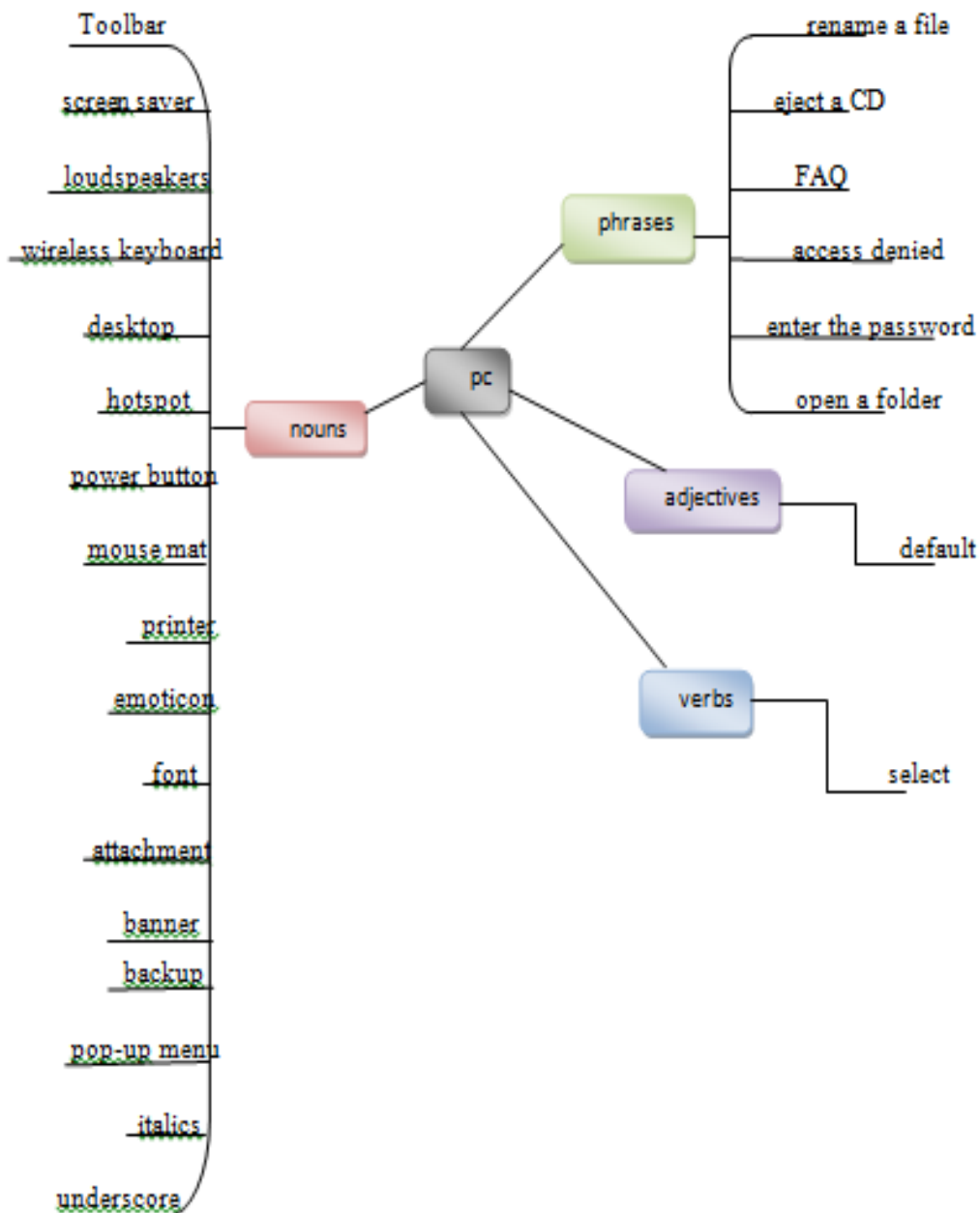
Figure(7):(PC)mind map (organized according to grammatical features, Http://1.bp.blogspot.coml…)

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

Generally, M has been used in the following ways: 1) for general vocabulary development, 2) for pre and post reading, 3) for the teaching of a study skill, 4) for a link between reading and writing instruction, and 5) for an assessment technique.

As an important strategy of vocabulary instruction, SM is generalized as

Follows:

a. Write a keyword or topic related to classroom work on a sheet of paper, the backboard, or a transparent slide.

b. Encourage the students to think of as many words as they can that are related to the selected key word or topic.

c. Guide the students to list the words by categories.

d. Have student label the categories.

e. Discuss the relationships between these words.

<center>(Adapted from Johnson & pearson, 1984)</center>

2.17 Advantage and Disadvantages of Semantic Mapping

The typical characteristics of semantic mapping lie in its effectiveness in visually integrating new words with the old and promoting a deep level of semantic processing. Both empirical and theoretical studies have justified these advantages. When Korbon (1984, as cited Heimlich & pittelman, 1986) observed suburban sixth graders of different cultural groups, she confirmed that students do exploit their unique experiences as a means of developing vocabulary. So her finding support the usefulness of SM. Margosein, Pascarella and Pflaum (1982) and Vogt (1983) all confirm in their case studies that SM has a greater impact on vocabulary acquisition than dose the context clue approach or the traditional dictionary-

definition-plus-example approach, because semantic words and see the lexical or conceptual relationships among words. Here Hague and Machala's think that "meaning full exercises or classroom activities which promote formation of associations and therefore build up students' semantic networks are effective for long-term retention" (Hague, 19987: Machalias, 1991; as cited in Sokmen, 1997: 249). In addition, because semantic mapping SM emphasizes tapping prior knowledge , it corresponds to Schema theory's principle that "new learning occurs either when adding to or adjusting already existing knowledge"

(Stoller & Grabe, 1993:33), as can be seen, the empirical and theoretical research has convinced us of SM's advantages in items of facilitating vocabulary learning visually and directly.

Nonetheless, some anecdotal evidence in classrooms reminds us of the disadvantages of semantic mapping (SM). For example, when students are asked to think of words related to the key word or topic , they often generate too many new words or lee frequent words. The overuse induces learning overload. Especially for the student at lower language levels. As Stoller and Grabe (1993: 34) point out " the potential overuse of semantic mapping (SM) must be avoided in L2 contexts where students may be easily overloaded". Secondly, semantic mapping(SM) function to introduce words in certain category, so the words in the map are always semantically or syntactically similar. Students often confuse them. For example, some student take cabbage for carrot, or British for Britain. The worst performance takes place if the linked words or representations include both similar and different features, such as in case of synonyms and antonyms. Thus teaching a pair of words like prevents and protects, open and shut makes learning more difficult.

Higa, (1963) explain this phenomenon with this interference theory. He finds that the difficultly is caused by the similarity between the two items

strengthening their association and differences interfering with each other. The possibility for interference and confusion occurs when both of words in the same lesson are new for the learners. At the same time, "the degree of interference increases with the degree to which the interfering material becomes more similar to the material already learned" (Waring, 1997: 263). Tinkhan (1993) and Waring (1997) in their empirical studies both confirm the strong interference effect on the vocabulary learning . In order to avoid the interference effect, they recommend the student should be presented with new words unrelated to each other rather than with those that are semantically or syntactically linked. Otherwise, the new words will interfere with each other, thus impairing retention of them. In a word, the potential for overload and the possible interference effect that semantic mapping possesses are apparent and may influence the efficiency of vocabulary instruction.

Should we abandon the use of semantic mapping (SM) for vocabulary instruction? I think we should not draw a quick conclusion concerning the value of semantic mapping (SM) until we research in which the advantages or disadvantages of semantic mapping (SM) have come up.

2.18 Analysis of Arguments against Semantic Mapping

No doubt, students have more difficulty learning new words presented to them in semantic clusters than they do learning unrelated words. The anecdotal evidence in classroom has clearly revealed this point. But if we examine the experiments Tinkham and Waring conducted, we will find the research methodology itself quite puzzling. They had their L2 subjects learn new words paired with artificial nonsense words (e.g., pear_okess, mouse_kunop) simply by oral repetition. Then they compared the trials in which their subjects learned unrelated words. They both found their subjects learned more slowly when they were presented with words in semantic clusters paired with artificial words. I suspect that

the methodology itself goes against the well-known natural setting where people learn vocabulary.

For vocabulary learning, Hulstijn (1997:214) summarizes key principles of L2 vocabulary learning, saying:

a) New vocabulary items should not be presented in isolation and should not be learned in rote fashion.

b) New vocabulary items should be presented in meaningful context

c) Learners should elaborate on a new word's form and meaning in order to facilitate retention.

Although Tinkham (1993) and Waring, (1997) succeed in demonstrating the interference effect in learning semantically or syntactically linked words, they fail to set up an authentic or a quasi-authentic learning environment. Their suggestion realistic, since new words are always presented in a reorganized theme, regardless of methodologies of ESL programs. (As to the abundance of new words sharing similar semantic or syntactic elements in ESL texts, a number of examples and discussions can be found in Tinkham [1993, 1997] and Waring [1997].)

More oddly, Tinkham's (1997) further study on the interference effect of semantic clustering puts forward a conclusion that seems to go back to his starting point, at which he argues against the popular practice that ESL programs frequently present students with new words organized in semantic clusters, for example, clothing items. In this study, he suggests "a more thematic manner of organizing new L2 vocabulary", while he claims that "semantic clustering dose serve as a hindrance" (Tinkham, 1997:138). Yet the two categories of clusters are not mutually exclusive. That is, some words might be both semantically and thematically related. Although he says he distinguishes the two different manners of organizing lexical items on the base of the study of lexical semantics ("semantic clustering based upon semantic and syntactic similarities

between clustered words and thematic clustering based upon psychological associations between clustered words and a shared thematic concept" ([Tinkham, 1997:141-142]), in reality, the two categories are hard to delineate strictly. Nevertheless, Tinkham's emphasis on thematic clustering, once again, has justified the importance of context for vocabulary learning, as has been widely accepted in the vocabulary acquisition field.

To show how context is important, let's have a close examination of vocabulary acquisition theories throughout the literature. Nagy (1997:67), the proponent of vocabulary acquisition through incidental learning, argues the importance of context from two common _sense observations: What a word means on any given occasion is mediated by the many contexts in which it is used, and such contexts provide considerable input from which language users clearly pick up huge amounts of vocabulary knowledge, apart from any explicit vocabulary instruction they may receive. Even Nations, Stoller and Grabe and other advocators who contend that vocabulary should be learned through the combination of explicit instruction and inferring from context, have not denied the role of context in vocabulary learning. Context is always crucial in the pedagogical themes these researchers have been exploring such as integrating new words with the old, providing a number of encounters with words, facilitating imaging and concreteness, using a variety of techniques including semantic mapping SM. Etc, (Sokmen, 1997).

The above discussion and expansion of Tinkham's studies shows, on the one hand, that despite the interference influence, it is not always applicable to presenting unrelated new words, while, on the other hand, it signifies that are most likely to be learned within a theme, namely, in a context.

In the case of thematic clustering as a facilitator of L2 vocabulary learning, semantic mapping SM has its strength in weaving semantic networks central to a theme. Therefore, I believe I have found a convergence of arguments that I had initially presumed to be contradictory.

2.19 Learning Vocabulary Mastery by Using Semantic Mapping

Vocabulary and grammar play vital importance role. Both of them are two inherent language components one with another. Vocabulary is dominated when someone comprehend in reading conversation or article. Without vocabulary it is impossible for us to reach target.

Learning vocabulary using semantic mapping can be done by applying the procedure of word map, select a word or concept central to the topic, display the target word or concept, generate as many words as possible that relate to the target word such as: investigator, discoverer, etc. leads discussion about word map and asks other students to create similar word maps on the other next lessons. By using this procedure, hoped that it will increase that students' vocabulary mastery.

2.20 Teaching Vocabulary Via Semantic Mapping

Richard and Renandya (1986) state that one of the other interesting technique that teachers can use in teaching vocabulary is semantic mapping. This technique incorporates a variety of other memory strategies. They are grouping, using imagery and associating or elaborating, also this technique is valuable for improving both memory and comprehension of a new word, even enrich their vocabulary. In semantic mapping activity there is no single " right answer " because students just asked to categorized the target word that the teacher has given and then they have to find some new words in each category from

what they labeled. The teaching & learning process itself beginning with explaining and modeling the procedure of how to construct a semantic map, it means the teacher explain that to develop a wide knowledge of words. Because we learn words best by using them in many different context but still in a range of a topic they learnt. So, the teacher begins the study by mapping the word, next step is the teacher provides a guided practice when the teacher encourages students to make a semantic map. The teacher walks the class through the constructing of a semantic map for the words. Students discus the target word (some words that are given by teacher). Get them to bring a dictionary in the next meeting if the students seem difficult to comprehend and categorize the words at the first meeting. Third, the teacher establishes a routine for sharing the students' result of their semantic map. Then, encourage them to use the words in a sentence and for this study the writer get them to make a description sentence, from word and rule of making a description sentence that they have learnt before. Lastly, do the review for teaching meeting is important to establish their readiness for the new semantic mapping which they are going to make at that time.

line with the wide explanation above, what is semantic mapping and how to use semantic mapping in teaching and learning vocabulary, the writer hoped that semantic mapping could help the teacher to answer the students' problem in learning English vocabulary and also could proof this study, if semantic mapping can increase students' vocabulary beside facilitate the students' to memorize the word in the students' course.

2.21 Procedures of teaching Vocabulary

Here are some procedures of teaching vocabulary using semantic mapping technique follows:

Pre – activity

- Teacher greets the students.

- Teacher checks the students' attendance list.
- Teacher tells the material which is going to be discussed.

While activity

- Teacher gives the students a narrative text.
- Teacher asks the students to look for the meaning of the bold words in dictionary.
- Teacher asks the students to pronounce the words after the teacher.
- Teacher introduces the map to the students by drawing a map as a picture of what they need to know to understand a new word " bold words ".
- Teacher demonstrates the use of the map by putting general, common term in the central box " beautiful ".
- Teacher asks the students to suggest words or phrases to put in other boxes.
- Teacher has given them the definition of the common term in the central box.
- Teacher provides the students with sentences each containing a new word e.g. " My sister is beautiful ". That beautiful woman is my teacher.
- Teacher encourages the students to refer to the dictionary, encyclopedia or other reference books for help.
- Teacher brain storm the students schemata about the words by asking some questions based on the words given. For example,

-What is in your mind when you heard the word " beautiful ".

-Can you mention the synonyms of beautiful?

Post activity

- Teacher delivers the summary of the lesson by asking.

-What kind of vocabulary have you got today?

- -Mention some words you have got ! Teacher answers the students' questions in any, clearly.
- Teacher closes the meeting.

Generally, teaching is a guidance process when teacher delivers knowledge to the student using several methods, techniques and strategies in order to direct the student to improve skill in doing everything. Teaching has a purpose for aiding the students to learn. A good teacher should know how to improve students' skill and how to present material in order to suit the aim prescribed in the curriculum.

Yuruk (2012) assure that in a foreign language learning context, it cannot be denied that vocabulary is an element of great importance and emphasized to a great extent. When this importance of vocabulary learning is taken into consideration, we cannot skip the role of learning strategies in vocabulary learning and teaching. Another benefit of using strategies could be that, once this ability gains, students may transfer the vocabulary to another language skills. So, vocabulary learning strategies are recognized as a way to empower students to take control of responsibility for their vocabulary learning. Vocabulary learning strategies may help students to learn and remember words in learning a foreign language. By using Semantic Mapping Strategy for different vocabulary items, students can improve their mastery in vocabulary learning.

Moreover, Yuruk (2012) states that semantic mapping requires the teacher and the learners to cooperate to build up a diagrammatic map which indicates the associations between vocabulary suggested by the teacher, vocabulary by the students and vocabulary found in reading text. Semantic mapping takes part in students' background information about the topic provides an efficient way to strengthen key words and allows the students to indicate the new vocabulary into their existing schemata.

Semantic mapping also assists the learner to learn unknown words through known words in a semantically related net work.

Below is given a simple example of word network. (Ur, 1996:69).
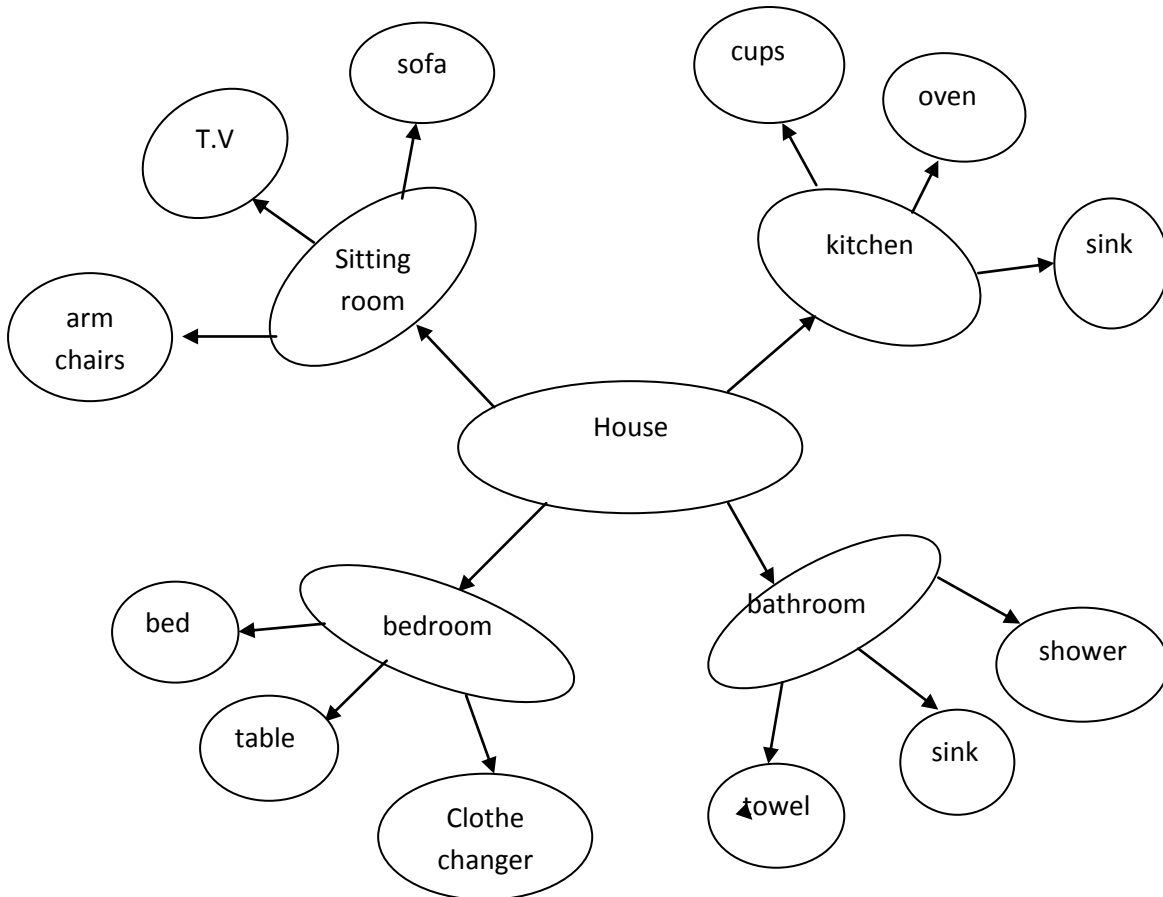
Figure (8): Diagram showing word association / vocabulary net work
(SPINE 4 Students' Book, 4th Edition, published 2001).
Below is given a simple example of word network. (Ur, 1996:69).
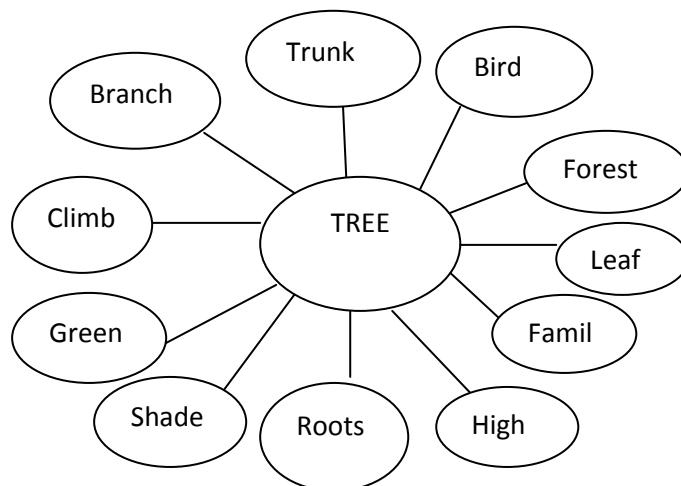
Figure (9): Diagram showing word association / vocabulary net word

2.22 Technique of Semantic Mapping Strategy

Semantic mapping is a useful strategy that can be introduced to learners at any level of proficiency. It involves drawing a diagram of the relationships between words according to their use in a particular text. Semantic mapping has the effect of bringing relationships in a text to consciousness for the purpose of deepening the understanding of a text and creating associative net words for words.

In teaching vocabulary, various techniques need to be used in order to motivate the learners to enjoy the English class and to avoid them from getting bored in learning process. In teaching vocabulary using semantic mapping strategy, the researcher assumes that it could be a productive and beneficial way to increase the student's mastery of vocabulary easily. The use of semantic mapping is expected to motivate students to learn English directly. It is considered from the point of view of comprehension and the students would get constant exposure to how important the concepts are expressed. This technique emphasizes comprehension by using the connection among words in a graphic map the students get easier to remember words as they seen in the map because semantic mapping is a good vocabulary presentation technique.

According to Zaid (1995, as cited in Emor, 2012) semantic mapping is an effective technique for teaching vocabulary and textual patters of organization and it is also effective to improve note taking and creative thinking skills. In general definitions, semantic mapping is a visual representation of knowledge and as a picture of conceptual relationship.

Thuy (2010) state that semantic Mapping has been usually used for:

1- General vocabulary development.

2- Pre and post reading.

3- Teaching of a study skill.

4- A link between reading and writing instruction.

5- An assessment technique.

Based on Johnson and pearson (1984) cited in Thuy (2010), there are some strategies of Semantic Mapping in the teaching of vocabulary as followed:

1- Write a key word or topic related to classroom work on sheet of paper, the blackboard or a transparent slide.

2- Encourage the students to think of as many words as they can that are related to the selected key word or topic.

3- Guide the students to list the words by categories.

4- Have students label the categories.

5- Discuss the relationship between these words.

2.23 Parts of Semantic Mapping Technique

According to Windura (2008, as cited in Maulia, 2014), there are six parts of Semantic Mapping, they are: central image, basic ordering ideas, key words, branches color and picture.

1-Central Image

It describes the main idea of Semantic Mapping and it is usually put on the center of the paper.

2- Basic Ordering Ideas

It comes as branches that collect a sort of information which is connected to the central topic that radiates out from center. The purpose is to increase the students understanding.

3- Key Word

It is strong noun or verb that create image to recall memory. The use of key word is to help students increase their vocabulary.

4- Branches

This comes as thinner branches and contains detailed of the central

Image. The branches should be curvy and contain the words or pictures related to the central word or image.

5-Color

Color is a very good memory signal and it involves the right brain in learning for long term memory. Color encourages creativity and help in memorizing. Furthermore, the function of color is also to help the classification of the information from the central word of image.

6-Pictures

The main function of pictures in Semantic Mapping is to actively involve students' right brain. It helps students remember much longer information received or things from the central word or image.

Semantic Mapping uses color and has structure which sprays from the center. Using Semantic Map, long list information could change into colorful diagram, well regulated contents and easier memorization. For example ,see figure below:
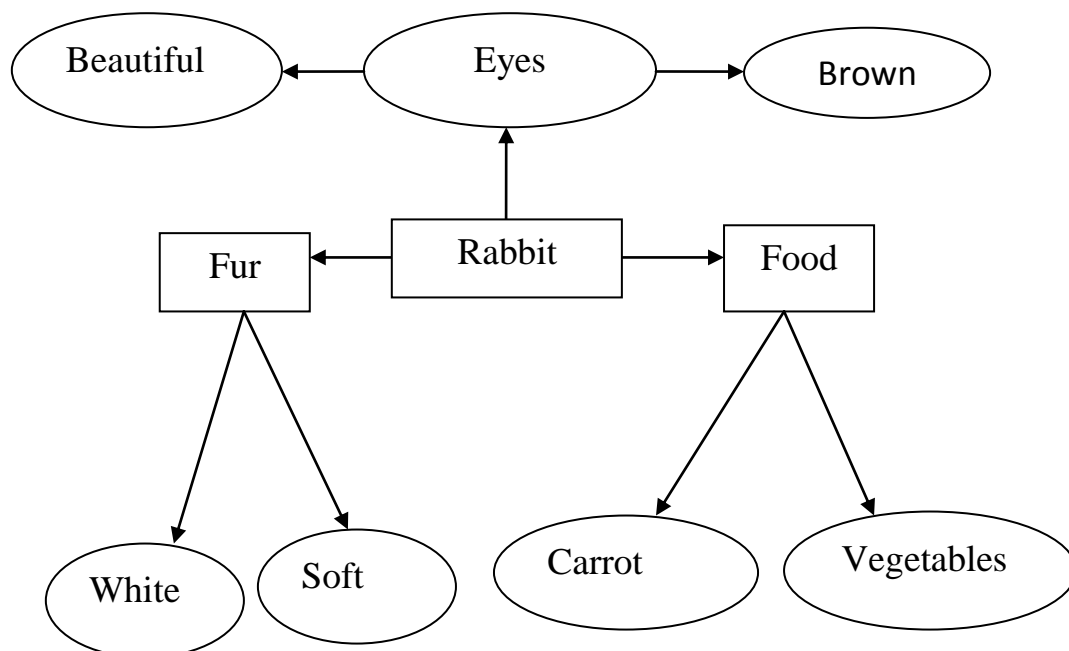
Figure I0: The Sample of Semantic Mapping

They are ideal for many types of learners including English Language learners with pre intermediate proficiency.

Generally, semantic mapping is defined as simple as a visual strategy for vocabulary expansion and extension of knowledge by displaying in categories words related to one another (Antonacci, 1991). Semantic mapping is an adaptation of concept definition mapping but builds on student's prior knowledge or schema. While it draws on prior knowledge. It recognizes important components and shows the relationships among the components. The frame work of semantic mapping includes; the concept word, two category examples and other examples. This is a very interactive process and should be modeled by the teacher first.

Hanf (1971) was the first to develop the mapping procedure; it was originally designed to improve the teaching of study skills. Semantic mapping is a term which embraces a variety of strategies designed to display graphically information within categories related to a central concept. Research indicated that semantic mapping can be very useful vocabulary development strategy and a good alternative to develop vocabulary learning (Carell, pharis & Liberto, 1989). Semantic mapping involves brainstorm session in which students are to develop a map based on a topic before or after reading a text. It is effective for vocabulary development. In pre reading and post reading activities, semantic mapping can be used in introducing the key vocabulary from the reading passage and also provides the teacher with an assessment of the background knowledge (Rasekh & Rajbary, 2003). Development in " lexical semantic " have promoted the development of the " semantic field theory " " semantic net words " or " semantic grids " strategies which organize words in terms if interrelated lexical meanings the " semantic fields 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 net words or relation between words (Sturbbs, cited in Amer, 2002). It is not worthy 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: pets, wild, food etc. (Gairns & Red man, 1986).

Semantic elaboration consists of a series of techniques as semantic features analysis, ordering, pictorial schemata and semantic mapping (Ellis, 1995; Sokman, 1997). Semantic mapping and semantic features meanings analysis draw learners' prior knowledge and use discussion to elicit information about word meaning. Semantic features analysis is similar to semantic mapping, with the exception that it uses a grid rather than a map as graphic display. Following examples will illustrate the two techniques

```
              ┌─────────────┐
              │  Life Cycle  │
              └─────────────┘
             /               \
            /                 \
┌─────────────────────┐   ┌─────────────────────┐
│ Get know some body  │   │    Get married      │
└─────────────────────┘   └─────────────────────┘

┌─────────────────────┐   ┌─────────────────────┐
│      Divorced        │   │    Have a baby      │
└─────────────────────┘   └─────────────────────┘
```
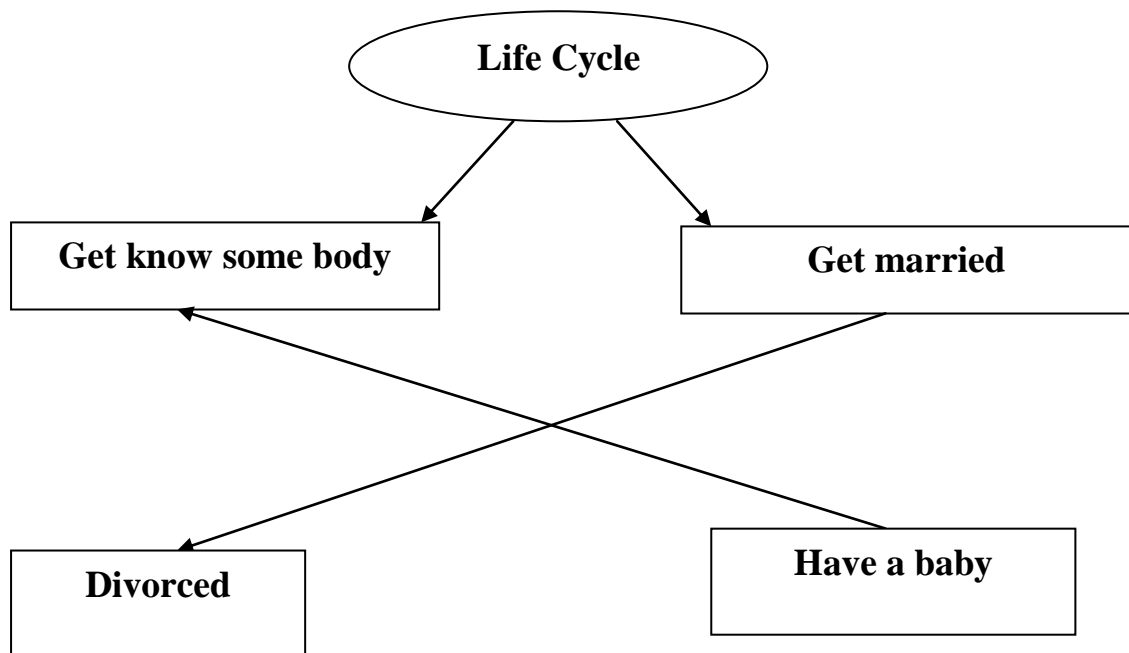
Semantic elaboration focuses on word meaning association attached on words. Words appear to be organized into semantically related sets in mind and thus the association attached to word will affect the way that it is stored in the brain. Furthermore, knowing arrange of association for a word helps understand its full meaning and helps recall the word from or its meaning in appropriate context (Nation, 2001).

Semantic mapping generally refers to brainstorming associations which a word has and then diagramming the results (Sok man, 1997) Johnson, Pittel man 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 by means of lines or arrows (Gairns and Red man, 1986).
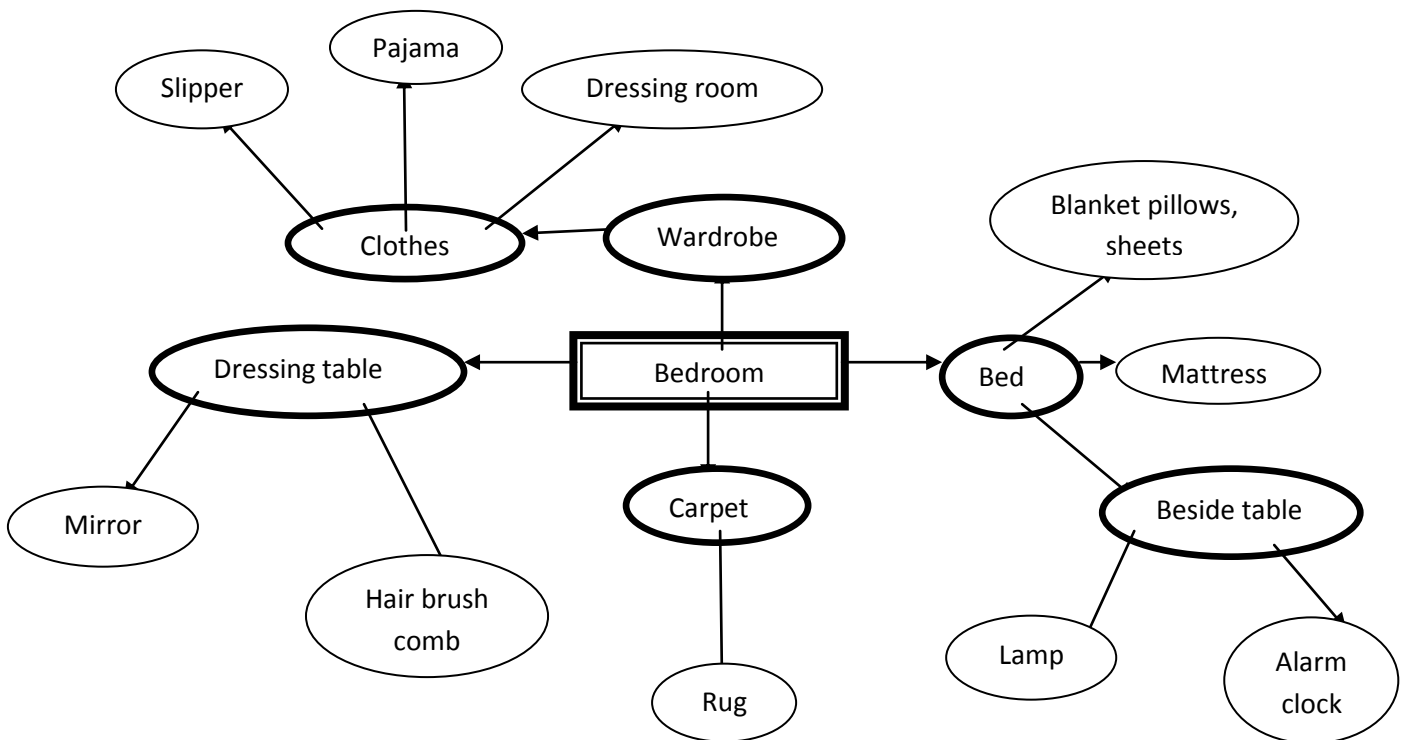
Figure (11): Semantic Map for Items in bedroom (Grains and Redman, 1986)

2.Procedure of Semantic Mapping

Semantic mapping is a graphic arrangement of words and it shows how new words and ideas are related to each other within a text   (Manthia Langan, 1990:1).

According to Antonacci (in Evalina, 2001:2) semantic mapping is visual representation of knowledge, a picture of conceptual relation. Generally semantic mapping has been used in the following ways, Those are:

a) For general vocabulary.

b) For pre and post reading.

c) For teaching of a language skills.

d) For a link between reading and writing instruction.

e) For assessment technique.

Students refer to context, their knowledge and dictionaries find the elements of semantic mapping.

According to Manthia Langan (1990:13) There are three places in a lesson where semantic mapping may be used, those are:

a-As a pre- assignment strategy to activate students' prior knowledge or to help the teacher in assessing the students' readiness to do the assignment.

b- As a strategy to allow students to record what they are learning during the assignment.

c- As a post- assignment strategy to allow them to integrate or synthesize what they have studied.

As a direct teaching strategy that includes brain storming and teacher – led discussion, it provides opportunities for schema development and enhancement as well as prediction, hypothesizing and verification for content when used as a pre- reading activity. It is also referred to as a web or concept map. There are three components of semantic mapping.

a-Core question or concept: this is a key word or phrase that is the main focus map.

b- Strands: subordinate ideas that help explain or clarity, the main concept and these can be generate by the students.

c- Support: details, inferences and generalization that are related to each strand. Supports clarify the strands and distinguish one strand from another.

2.24 Description of Semantic Mapping

" Semantic mapping generally refers to brainstorming associations which a word has and then diagramming the results". (Sokmen .1997 :250) ,

Johnson, Pittelman and Heimilich describe it as " categorical structuring of information in graphic form" (1986:779).

Generally, SM has been used in the following ways :

1- For general vocabulary development.

2- For pre and post reading.

3- For the teaching of a study skill.

4- For a link between reading and writing instruction and finally

5- For assessment technique.

As for an important strategy of vocabulary instruction, SM is generalized as follows:

a. Write a key or topic related to classroom work on a sheet of paper, the black board or a transparent slide.

b. Encourage the students to think of as many words as they can related to the selected key word or topic.

c. Guide the students to list the words by categories.

d. Discuss the relationships between these words.

(Adopted from Johnson& Pearson, 1984)

2.25 Advantages of Semantic Mapping

a-Semantic mapping is good teaching technique integrating thinking with reading.

b- Semantic assumes that learners have large vocabulary size so, it is more appropriate to use for higher level learners.

c- It is integrating assessment with teaching.

d- Semantic map technique will raise students participation in learning process.

e- Semantic map strategy can provide the teacher with an opportunity to correct misinterpretation, introduces new ideas or change interpretation.

2.26 Disadvantages of Semantic Mapping

a-It is boring to use semantic mapping all the time. Try other technique such as dictionary work, words unit analysis, mnemonic devices and oral production or integrate semantic mapping technique with other technique.

b- Not all the students know the generated words in categories.

c- Students with limited prior knowledge may fail to implement it properly or to apply to what they read.

2.27 Vocabulary Teaching

In general, language learning and teaching are based on theories or beliefs about language. As far as vocabulary teaching is concerned, it is necessary to focus on the implementation of communicative and lexical Approaches (Hasbun, 2005).

The lexical Approach introduced by Michael Lewis in (1993) put a great emphasis on the meaning and use of different language items with a set of principles based on a new understanding of language. Lewis (1997, as cited in hasbun, 2005) claimed that most of the activities used in communicative Approach are compatible with the lexical Approach, then what they tasks have a clear lexical focus. Basing on lexical principles, the following tasks are proposed (Hasbun, 2005).

- In de-contextualized gapped sentences, the gap should.
- Since the quantity and quality of the input influences the process, the most exercises must be based on highly probable. Used   examples.
- If exercises are to teach rather than test, learners must recognize some answers and deduce other by a process of elimination using linguistic clues, the groups shared knowledge and small element of plain guess work.
- When working with collocation, words should be presented in descending order of information content.

2.28 What is a word?

A word is a single unit that bears one or multiple meanings .In contrast with morphemes a word can always stand isolated as well as it can be combined with other words to build more elaborated utterances.

The characteristics that all the words share are the written and the phonological forms, furthermore they are subjects to grammatical rules. Words carry multiple meanings, depending on the context, and they also affect words that surround them, in a grammatical a well as semantic sense.

When thinking about words in context there is a need to distinguish tokens and types. This terminology is use to count how often particular words occur in a text. Tokens include all forms and count a word as many times as it occurs in the text. On the other hand , the number of types is a total number of different word forms, however , these forms are counted only as one word . The proportions of types and tokens are called type – token ratios and are mainly used to measure the vocabulary development of native speakers as well as second language learners (Read, 2000: 18). Another distinction of word is based on the meaning . First , there are function words that do not bear any particular meaning, such as articles, prepositions, conjunctions or auxiliaries. Second, there are content words, such as nouns, full verbs or adverbs. Unlike the function words, the content words have particular meanings and therefore, they are usually the main subject of the vocabulary testing. Function words are, on the other hand , tested under the heading of grammar. However, even the content words are problematic when it comes to their multiple form. They could be divided into two groups: lemmas and word families. Lammas do not change their meaning even when there are some inflectional ending added to the base word, e.g. walk, walked or walking. On the other hand, when the inflections change the meaning of the word or the word class of

the base, they are called derived forms and they belong in a word family. These sets of word forms are for example: family, unfamiliar and familiarize.

It is also necessary to stress that there are also homographs, words that share the same word form, however, have at least two different meanings, for example the word bank which could state for sloping land along a river as well as a financial institution.

Word also create larger lexical items that have to be learnt together. One word can have a very different meaning in a combination with another word . There are for example phrasal verbs that combine verb with prepositions and create a new meaning of this construction (e.g. look after, take over). Similarly lardy work compound nouns (e.g. full moon, bed room) as well as idioms (piece of cake). While the meaning of compound nouns could be easily decoded from the word used, idioms are phases that in a particular combination mean something different and therefore the meaning cannot be inferred, only learnt>

Finally, all these terms teachers and learners should bear in minds when dealing with vocabulary. There is not a simple answer to what a word is and there is a huge difference in learning or teaching different words, taking into account their word classes, word forms, their position in sentences, possibility of multiple meanings in different contexts and the way they effect other words that surround them in a sentence.

2.29 Importance of knowing a word

In previous subchapter has already dealt with what a word is and how it can be categorized. It has also suggested that a word dose not carry only one particular meaning and that there are more messages a word expresses. There is a definition by coady, (1993) who clearly summarizes what it means to know a word>According to him knowing a word involves:

"knowing the degree of probability of when and where to encounter a given word and the sorts of words to be found with it, the limitations imposed on it by register, it's appropriate syntactic behavior, its underlying form and derivations, the network of associations it has, its semantic features, its extended or metaphorical meanings"..(Coady,1993:13)

The view that you know a word if you can give an L1 equivalent I hopefully history . Therefore , all the elements that are included in " knowing a word" by Coady need to be incorporated in the process of vocabulary learning , However , knows a synonym sufficient ? Is recognizing the word and understanding its meaning enough? Is using the word correctly in a sentence enough? All thes question touch closely on the necessity to gain more knowledge about a word in order to understand it in a text or to actually use it.

Formerly the skills concerning the usage of vocabulary were called active and passive. Active skills including speaking and writing and passive skills consisting of reading and listening .However , these terms are misleading because even when learners are listening or reading it does not mean they are not doing anything . Therefore, the new terms emerged: productive and receptive or (receptive-interpretative) skills.

Receptive kills allow the learner to work with a text, when reading, seeking for specific information by skimming or for general information by scanning. The process of interpreting a text is very complicated because most likely the text does not only consist of words the learner knows. Therefore when the learner reads or listens to some text, it is necessary to deduce the meanings of unknown words from the context and to discover their function and discourse patterns. Surely, the input has to be adequate to the learner's level and also the learner has to be trained to use the productive skills effectively. In real life it is very likely that learners encounter vocabulary and grammatical structures they have not

encountered before, therefore at that moment they have to deal with them in order to understand at least the general idea of the text or the utterance. When learners feel the need to express themselves, in written or spoken form, they have to integrate their productive skills. As the motivation for the receptive tasks is to understand, here it is to communicate and express one's ideas. This process is creative and therefore it requires deeper knowledge than interpreting a text. At this stage the learner has to apply the knowledge of the vocabulary as well as the grammar needed to be understood. On one hand, it may seem more difficult to put together all the rules and vocabulary. However, on the other hand the learner is the one that decides which words to use and if there is a knowledge gap, more advanced learners may substitute a missing word with a synonym or to paraphrase the meaning of the word. Nevertheless, this is only possible from a certain level of the learner's language knowledge.

Since it is clear that learners need different skills to understand text and different skills to express their ideas orally, these skills need to be properly trained. Learners have to think in advance how much they want to know about the word and for which purpose. Is it sufficient to work out a vague meaning from the context ? or is it also necessary to know the rules that closely apply to this word in order to use it in one's own speech ? these questions have to be answered by learners as well as teachers, because they have a huge impact on the vocabulary assessment . When learners are asked to study a number of words, they have to know for which purpose, in which way will the words be tested. It is not possible to study from L1- L2 word list and then expect that learners can use it correctly in their utterances.

Finally, knowing a word is not an easy concept to define. It involves for instance knowing L1 translation, word class, word forms, collocations or register. Some of these help learners to interpret a text they encounter and some are there to help them produce their own utterance. Therefore, it is

important to know what the learner actually wants to learn and what the purpose is, as it is impossible to acquire all the knowledge at once.

2.30 Lexical Competence

No doubt, the question " what constitutes vocabulary knowledge?" is a very complex one, and there has not been a conclusive answer to it. Researchers could only offer sets of assumptions as to what constitutes vocabulary knowledge. What are available as an answer to the question at the moment are sets of assumptions. Some of that are believed to constitute vocabulary knowledge, as identified by researchers are:

Richard, (985:30)

e. Knowing a word means knowing the degree of probability of encountering that word in speech or print. For many words we know the sort of words most likely to be found associated with word.

f. Native speakers of a language continue to expand their vocabulary in adult hood where as there is comparative little development of syntax in adult life.

g. Knowing a word implies knowing the limitation imposed on the use of the word according to variation of function or situation.

h. Knowing a word means knowing the syntactic behavior associated with word.

i. Knowing a word entail knowing of the underlying from of a word and the derivations that can be made form it.

j. Knowing a word entails knowledge of the network of associations between that and other words in the language.

k. Knowing a word means knowing the syntactic value of a word.

l. Knowing a word means knowing many of different meanings associated with a word.

Wallace, (1986:9-11)

a. Ability to retrieve vocabulary appropriately that has been taught.

b. Use of vocabulary appropriately in the given situation.

c. Use of vocabulary at the right level of formality.

d. Possessing the right kind of word (vocabulary) for one's.

e. Use vocabulary in an idiomatic way.

f. Use vocabulary in a meaningful way.

g. Correct use of a dictionary.

h. Correct use of grammatical form, spelling, pronunciation or stress. Hamer, (1987:158)
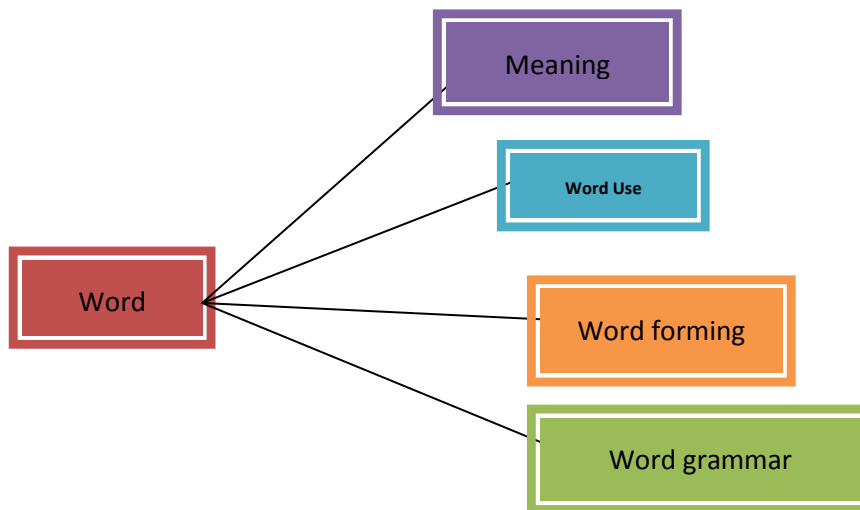
He summarizes knowing a word: Meaning in context relation, metaphor and idiom collocation , spelling and punctuation, part of speech, prefixes and suffixes, register and style, Nouns countable, etc verb complementation, adjectives and adverbs position, etc

From these set of assumptions, it may be inferred that lexical competence comprises two main kinds of abilities: The ability to comprehend the meaning of unfamiliar words from context and store them (comprehension), and the ability to retrieve words from memory own context (production), currently, many researchers in the area perceive lexical competence as consisting of these two abilities although there are some who insist that "lexical competence must be understood as competence for use rather than knowledge of words" (Ooi and Lee Kim-Seoh, 1996:52)

2.31 Vocabulary Learning Strategies

It should be noted that to whatever extent the practice of teaching is marvelous in the classroom, there is no evidence to believe that learning

has taken place at a satisfactory degree. The mere inseparable nature of teaching and learning does not ensure that learners have gained the intended knowledge. In this regard, ez(Waring, 2002: 25) claims that teaching a word don't mean students have learned it , and the fact that students have finished a unit should not mean they have mastered all words in it. As a result, besides the effort of maximizing the efficiency of teaching, should be an equal or even more investigation of the nature of the learning process the learners under go. Because learners are the most responsible bodies to enrich their word power, it is essential to high light the importance of learning strategies.

Researchers do not seem to be interested in defining the term ، learning strategy'for different reasons. First, there are no universally best strategies equally suitable for every learner. Second, the effectiveness of strategies depends on many other factors such as the nature of the learning task, the learners'motivation, attitude, prior knowledge, the learning environment and o on. Thirdly, the application of a wide range of strategies is more useful than using fixed ones. Lastly, strategies found to be useful one time may not be useful other times (Pavicic, 1999,Schmitt 2000, Nation 2001,Gu, 2003).

However, a common perception held by these writers entails that learning strategies involve conscious, self-initiated, and selective and series of actions the learner takes to facilitate the act of learning, retaining and recalling new words. Likewise, oxford (1990:1) writes that: learning strategies are steps taken by students to enhance their own learning… they are tools for active, self-directed involvement, which is essential foe developing communicative competence. Appropriate language learning strategies result in improved proficiency and greater self-confidence.

The concept of selection and appropriateness of strategies implies the availability of numerous strategies for the learner to choose from with respect to suitability and individual preference.

Part (Two): Previous Related Studies

In this part the researcher will present some studies that have been conducted in the same area as the present study. Reviewing the contribution of these studies is important of having clear picture which helps for giving suggestion and contribution. Therefore, the researcher in this part of the study reviews the contribution of other researches in the area of teaching and learning using semantic mapping strategies in developing vocabulary learning.

Study(1)

This study was carried out in 2017 by Amirnoder Elahi, at Islamic Azad University at central Tehran, Faculty of Foreign learners English Department, Tehran, Iran. It was MA thesis under the title " The Effect of Using Semantic Mapping and Memories on EFL learners' vocabulary achievement ".

This study aimed at examining the effect of using Semantic Mapping techniques on EFL learners' vocabulary achievement. The instrument used for data collection is test administered to 50 male students aged 13 – 16 from 70 students. They were chosen randomly. The test is experimental one pre-post test was used. The results of the statistical analysis revealed that there was no significantly effect on learners' vocabulary achievement using semantic mapping.

Study(2)

This study was carried out in 2011 by Mahnaz Saedi, at at Islamic Azad University under the title " Teaching vocabulary through Semantic

Mapping as pre-reading activity across gender ". It was a PH.D thesis. The aim of the study is to examine the effect of semantic Mapping on learning vocabulary across genders. The sample of the study is intermediate students after the administration of standard proficiency test. Their number is 120 students. Pre- post test were used as main tools to

gather the data of the study. The result of the study suggested that Semantic Mapping can be used as an efficient methodology for teaching vocabulary. It is found to be an effective technique for both male and female EFL learners.

Study(3)

This study was carried out in 2017 by Mohammed Hussein Hamdan at Saud Islamic University, Kingdom of Saudi Arabia under the title " The Effectiveness of Semantic Mapping strategy on Vocabulary Achievement of EFL Saudi Female preparatory- year Students. It was a PH.D thesis.

The purpose of this study is to investigate whether applying semantic mapping strategy to teach new vocabulary for preparatory- year EFL Saudi female Students was useful on reading texts. To achieve the purpose of this study, the study attempted to provide answers to two research questions:

How does the use of semantic mapping in teaching vocabulary affect EFL female preparatory-year students?

Which type of semantic mapping are effective in reading vocabulary based-reading texts?

The study participants were forty students divided into two groups: control and experimental group. The result of the study indicated that semantic mapping strategies had positive impact on students' vocabulary performance and reading. However, concept-categories maps were regarded to be the best type of semantic mapping strategies performed by the students, followed by compare-contrast map. Finally, the questionnaire finding reflected students' positive attitudes towards using semantic mapping strategies with all its different types.

Study(4)

This study was carried out in 2011 by Elamathi at Faculty of Education university of technology, Malaysia, under the title " The effect of using

Semantic Map Strategy on Reading comprehension for lower secondary learners ". It is a MA thesis. The aim of this study is to examine the effectiveness of semantic mapping strategy on reading comprehension for lower secondary learners. The research questions are:

1) What are the students' conceptions towards Semantic map in reading comprehension?

2) Does Semantic Map has an effect on reading comprehension?

Pre-post tests were used as main tools for this study. The results of this study showed that there was a strong connection between Semantic Mapping and reading comprehension. This study has revealed that semantic mapping strategy enhances and encourages students' comprehension.

Study(5)

This study was carried out in 2009 by Rahma Wafi at Muhamadiyah University of Surakarta under the title " Improving Students' Vocabulary Mastery through Semantic Mapping ". It is a MA thesis. The aim of this study is to find out the role of semantic mapping in improving the students' vocabulary. The instrument used for this study were experimental pre- post tests and questionnaire. The result of the questionnaire and tests show that semantic mapping has played a great role in improving students' vocabulary.

Study(6)

This study was carried out in 2014 by Marzieh Mohammadi Ziarani at Faculty of Persian literature and Foreign Languages, Islamic Azad University, south Tehran under the title" Investigating the Effect of Morphology Instruction through Semantic Mapping on Vocabulary learning of Iranian Intermediate EFL learners. It was a PH.D thesis. The aim of the study is to investigate the effect of morphology instruction through semantic mapping on vocabulary learning of Iranian intermediate

EFL learners. 50 out of 70 students were selected from English language institute as a study samples. The instruments used in this study is experimental test pre post tests were used as experimental and control group. A pre test (teacher made) was administered to both groups. A post test was administered for the experimental group. The results revealed that there was a statistically significant difference between the two groups, but no significant difference was found between the female and male participation.

Study(7)

This study was carried out in 2016 by Hani Abdulrahman Al-Sidalani at Taibah University, Kingdom of Suadi Arabia, under the title " The Effect of Using Semantic Concept Mapping Strategies on developing the vocabulary of EFL female secondary schools students and their attitudes towards using it. It is a MA thesis.

This study investigate the effect of semantic concept mapping strategy on developing the vocabulary of EFL female secondary students and their attitudes towards using it. A pre- post tests were used as main tools for this study. The result showed that there were statistically significant differences in the achievement means scores of the members of the experimental group who were taught using semantic concept mapping Strategy and the control group was taught by using traditional method. The results of the questionnaire revealed that there were positive attitudes received from the students towards using semantic concept mapping strategy in vocabulary learning.

Study (8)

This study was carried out in 2005 by Thuwaibah Bt Mohd Junaid, at Faculty of languages, University of Pendidikan Sultan Idris under the title " The effect of Semantic Mapping Strategy Training on reading comprehension of scientific texts among Matriculations students ". It is a

MA thesis. The objectives of this study is to examine the effects of Semantic Mapping on the reading comprehension of scientific text among Matriculations college students. Pre- post tests were used as main tools for data collection. Experimental and control group tests were given to the students. The findings indicated that semantic mapping strategy training affected the reading comprehension performance of scientific texts among Matriculations college students. The experimental group that received semantic mapping training improved significantly in their post test. The findings imply that ESL teachers should encourage their students to use semantic mapping in their reading instruction as it facilitate comprehension.

Study (9)

This study was carried out in 2013 by Mahadi Mohammed Ismail, at Sudan University of Science and Technology under the title"Semantic mapping for improving ELT student's Reading Comprehension from teachers Perspective". It was a MA thesis. The aim of the study is to investigate whether semantic mapping strategy helps learners derive meaning of the new words from the context.

 Study(10)

This study was carried out in 2010 by Mahnaz Saeid,under the title " Teaching Vocabulary through Semantic Mapping as a pre-reading Activity across Genders". It is submitted to University of Islam Abad. The aim of the study is to examine the effect of semantic mapping on teaching vocabulary across genders. The researchers selected 120 intermediate students after the administration of a standard proficiency test. A vocabulary test was also used to measure the student's vocabulary knowledge the experimental group received semantic mapping in the pre-reading stage, but the control group did not receive this treatment.

The results of the study, based on statistical analysis of the data, indicated that the experimental group outperformed the control group in vocabulary learning. As for the gender differences, the results indicated no significant difference between males and females. It can be suggested that semantic mapping can be used as an efficient methodology for teaching vocabulary, a technique which is equally effective for male and female EFL, Learners.

All of the above mentioned studies agree upon the notion that semantic mapping has positive effect on students learning. All the above studies use experimental pre-post tests as main tools for data collection.

2.32 Summary of the chapter

This chapter deals with two parts, part one is related to the theoretical framework on the use of concept of strategies of semantic mapping . Part two deals with the previous related studies in this area ,most of them cover the area of using strategies of semantic mapping to develop vocabulary learning.

Chapter Three
Research Methodology

Chapter Three

Research Methodology

3.0 Introduction

This chapter is operational framework of the study; it deals with , the population and subjects, tools, distributions materials ,validity and reliability of the instruments, data collection procedures and summary.

3.1 Design of the Study

This study adopted both quantitative and qualitative method . to meet its aims by using a questionnaire and tests to gather information from purposive sample of (100) students as well as (70) English Language Teachers.

3.2The Population Of the Study

In this study the samples who responded to the questionnaire and test are divided into two groups. The first sample group is the 3rd level Secondary School female students from Khartoum State Bahri Locality, they were100 students , 50 of them are experimental group and 50 are control group. The two groups were chosen randomly.

The second sample group is English Language Teachers working in different Secondary Schools in Khartoum State Bahri Locality .The participants were selected randomly, they were 70 in numbers 35 of them were females and 35 were males . The participants of the study have different qualifications graded from BA, MA, and ph.d. degrees in English Language.

3.3 The Subjects of the Study

The subjects of the study are divided into two groups:

The first group is a group of Secondary School female students, from 3rd year in Khartoum State Bahri Locality. The second group is a group of English Language Teachers in Secondary Schools , in Khartoum State Bahri Locality. The sample of this study is selected randomly in order to

give an appropriate result. The students are given tests (pre- test and post – test) while teachers are given seventy copies of Questionnaires. Teachers were chosen randomly from many different Governmental Schools.

3.4 Tools of the Study

Selecting a method that enables a research to gather relevant adopted one type is a pre-test and a post-test, the tests were administered to 3rd class Secondary School Students of Khartoum State Bahri Locality. Students were amounting to one hundred they were divided into two groups, namely experimental and controlled. Before the test, the experimental group has been subjected to a dose of exposure to linking devices which was positively reflected in their exam performance. A questionnaire is the second tool used in this research . It was distributed to randomly selected group of Sudanese English Language Teachers at Khartoum Bahri Secondary Schools.

3.5 Sample Description

3.5.1 The Students

Tables below show the number of the students

Table (3.1): Frequency distribution for student's respondents according to gender

Gender	Frequency	Percentage
Male	40	57.0
Female	30	43.0
Total	100	100%

The results which are distributed in the above table (3.1) show that 100% of the students are female.
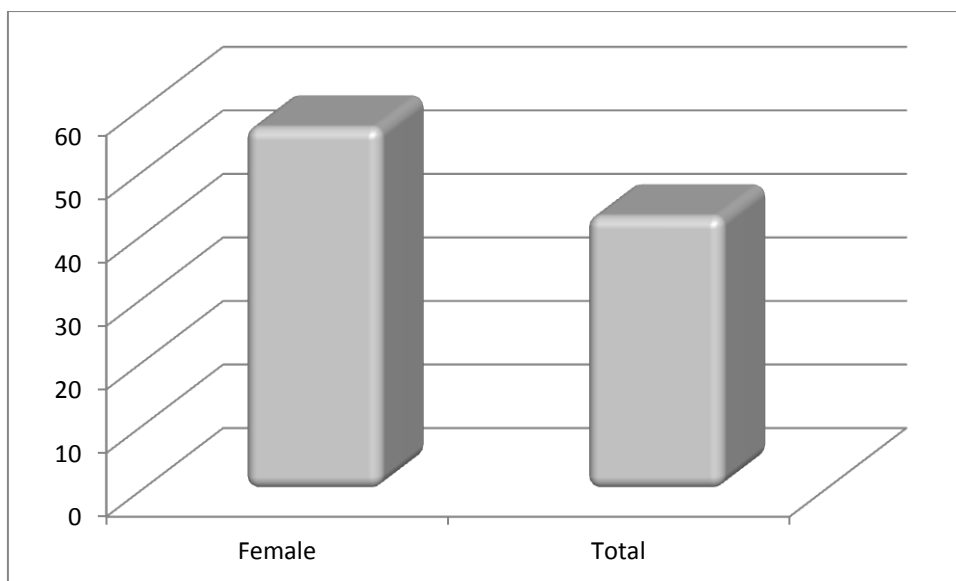
Figure (3.1): students'gender

3.5.2 The Teachers

Table below shows the number of English Language Teachers

Table (3.2): Frequency distribution for teacher's respondents according to age

Age	Frequency	Percentage
(25-35)	30	30%
(36-46)	20	20%
(47-57)	14	14%
More than 60	6	6%
Total	70	70%

The results in table (3.2)above show that 30% of the teacher's ranges vary between (25-35) years old, while 20% of them are aged between (36-46) , whereas 14% of them are aged between(47-57) and 6% are aged between(more than 60).
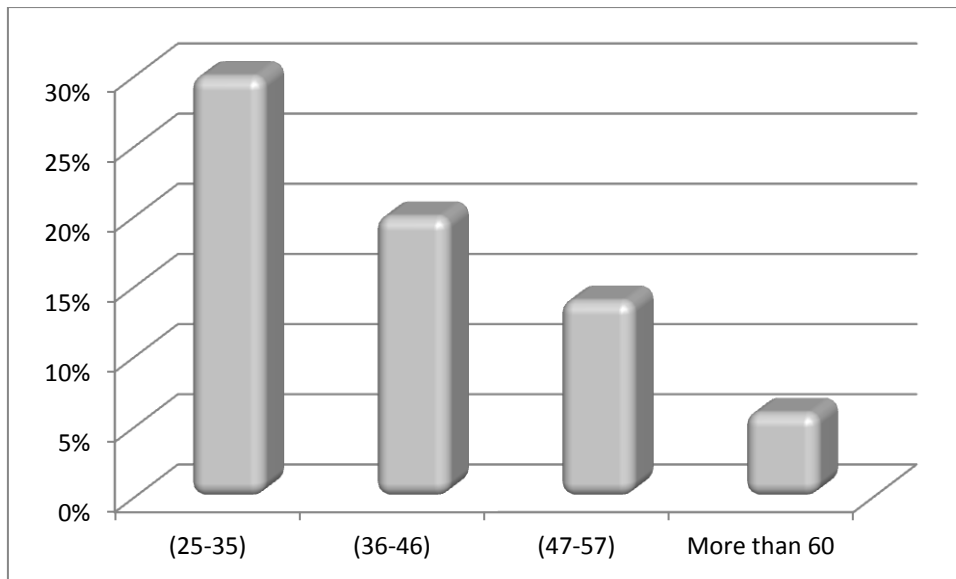
Figure (3.2):teachers'ages

Table (3-3):Frequency distribution for teachers respondents according to qualifications.

Qualification	Frequency	Percentage
Bachelor	35	49%
Master	18	25%
Ph.d	13	18%
Diploma	4	6.2%
Total	70	100%

The results in table(3-3) above show that 49% of the teachers qualified in Bachelor, whereas 25% are qualified in Master also 18% in PhD and 6.2% are qualified in diploma .
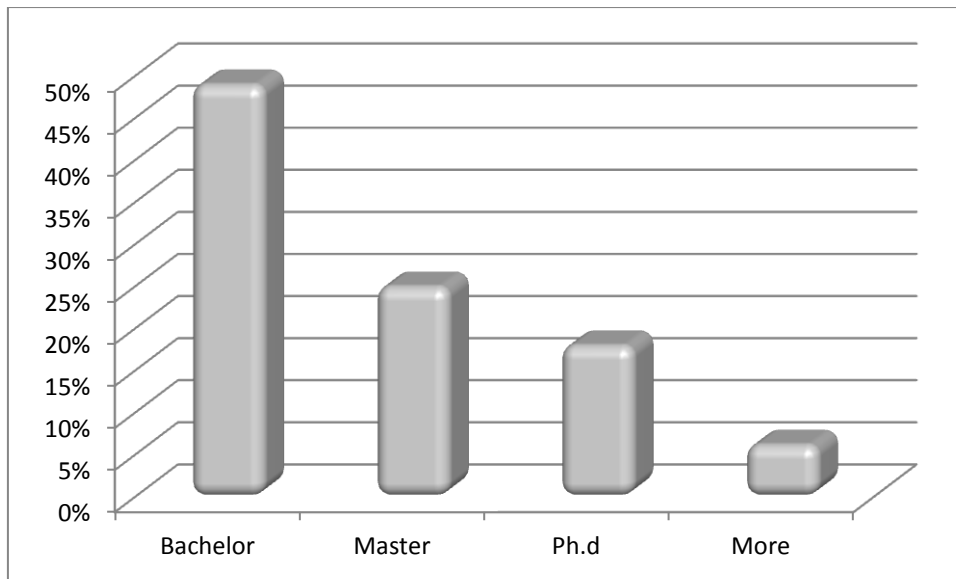
Figure (3-3) teachers qualifications

Table No(3-4) The Frequency Distribution for the Respondents Answers of teachers according to their Years of Experience.

Valid	Frequency	Percentage
From 1to 5	25	35%
From 6 to10	20	28%
From11 to15	16	22%
15 over	9	12%
Total	70	100
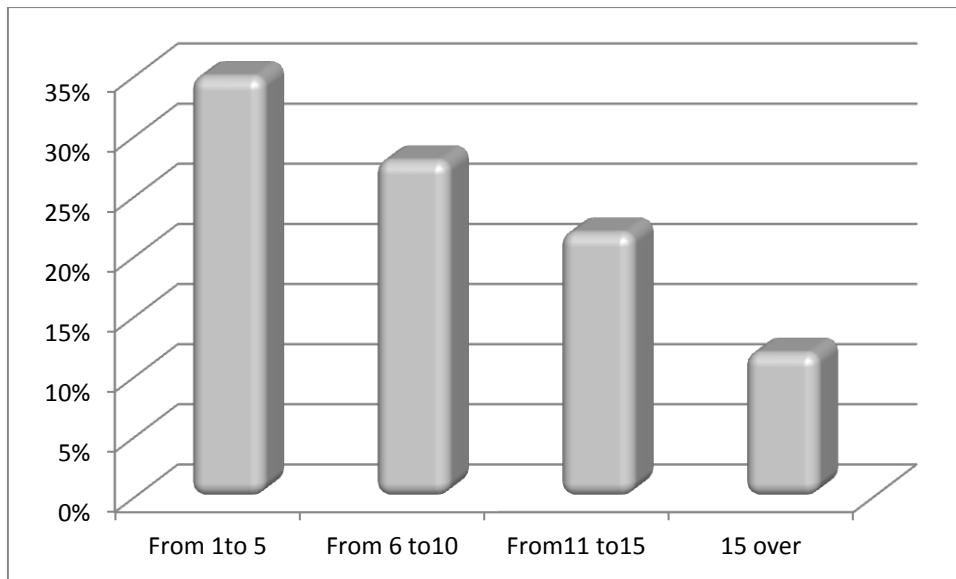
Figure(3-4) Teachers Experience

From the above table and figure its clear that the number of teachers with years of experience from 1to5 is(25) with percentage (35.7%) whereas number of teachers with years of experience from 6 to 10 was (20) with percentage(28.6%)also teachers with years of experience from 11 to 15was (16)persons with (22.9%) and above15 years was(9) with percentage(12.8%).

3.6 Research Instruments

Students' Vocabulary Test

In this research experimental test was designed for students. The experimental test is known as pre- post test. The pre test will be used for control group, and the post test will be designed for experimental group. The control group will comprise of 100 students and will be taught in the traditional way of presenting the vocabulary items. The experimental group on the other hand will also consist of 100 students and this group will be taught by the use of Semantic Mapping Strategy. The result of the test will be analyzed in the following chapter.

Teachers Questionnaire

The structured questionnaire was designed to examine teachers perceptions about the use of semantic mapping strategies for enhancing vocabulary learning. The questionnaire consisted of three sections consists of 15 items which show how the semantic grouping help students remember the words easily, enable students to remember the words for along time, and aroused students interest in learning the words as well as encouraging teachers to be aware of the importance of using Semantic Mapping Strategies in learning vocabulary. A four-point Liker scale was used with questionnaire statements, the scale was graded from agree to disagree. **(See Appendix (1))**

3.7 Validity of the Instruments

Validity of the Test

To determine the validity of test, both of treatment vocabulary list and the vocabulary test were given to a group of judges (**See Appendix(7))**.The juries were three ELT specialists with different years of experience and all of them have PhD degrees in teaching English Language, each in Sudanese Universities. They all suggest some changes in the test , the researcher modified the immediate test . The researcher follows some models of concept maps building core concept word , strand and support.

Validity of the questionnaire

To check the validity of the questionnaire, the researcher passed it to English language specialist as judges (*See Appendix (7))*. The juries of questionnaire were three teachers with different years of experience, all of them have PhD degree each in Sudan Universities. They all suggested some changes in the questionnaire, the researcher had made the changes for the questionnaire before measurement of its reliability.

3.8 Reliability of the instrument

Reliability of the Test

In order to ensure the reliability of the immediate test and the delayed test of the study, the researcher administrates a test retest on an experimental sample of 20 subjects who are taken from the population. Their tests are corrected. A statistical formula of Cranach Alpha is calculated. Found as (0.908) which is very high internal contingency coefficient. This is a very appropriate for the reliability of the test and for the purpose of the study. The correlation significant at 0.02level (2-tailed). (*See Appendix (2)*)

Reliability of the questionnaire

In order to assess the reliability of the teachers questionnaire, the researcher administers a test retest on a sample of 10 teachers who are taken from the population, the interval between the two tests was two weeks. Their tests were corrected. The researcher calculates the reliability of the test through Pearson's product moment formula. The correlation of coefficient between the two tests was (0.92) which is a very high internal contingency coefficient. This is a very appropriate for the reliability of the questionnaire for the purpose of the study.

(*See Appendix(1).*)

3.9 Research Procedures

1. The questionnaire was administered to teacher in order to decide their responses for given statements.

2. Following the completion of the questionnaire tests were carried out with secondary students.

3. The reliability of the questionnaire and test were ensured by retesting participants not part of the sample.

4. The questionnaire was distributed for teachers.

5. The tests were distributes to secondary student in Khartoum state Bahri locality.

6. The date of questionnaire and test were collected and analyzes by using simple tables and figures followed by a commentary on the items of the questionnaire a long with logical explanation for them.

7. Finally, the researcher, drew the main findings , conclusions of the study and suggestions for further studies.

3.10 Summary of the chapter

The researcher adopted the description in an analytical method. The sample of the study were teachers and students. They were chosen randomly. The researcher used questionnaire and test as data collecting tools, and then the questionnaire is distributed to teachers. The statistical method was used to analyze the results of the questionnaire and it will be analyzed and interpreted in the following chapter. The test results will also be interpreted in chapter four.

Chapter Four

Data Analysis

CHAPTER FOUR
DATA ANALYSIS

4.0 Introduction

This chapter is devoted to the analysis, evaluation, and interpretation of the data collected through the questionnaire which was given to 70 respondents who represent the teacher's community in some Sudanese secondary schools. Another tools used in this chapter is the test which designed for secondary school students at Bahri Model School for girls.

4.1 The Responses to the Questionnaire

The responses to the questionnaire of the 70 teachers were tabulated and computed. The following is an analytical interpretation and discussion of the findings regarding different points related to the objectives and hypotheses of the study.

Each item in the questionnaire is analyzed statistically and discussed. The following tables will support the discussion.

4.2 Analysis of the Questionnaire:

The researcher distributed the questionnaire on determined study sample (70), and constructed the required tables for collected data. This step consists transformation of the qualitative (nominal) variables (strongly disagree, disagree, Undetermined, agree, and strongly agree) to quantitative variables (1, 2, 3, 4, 5) respectively, also the graphical representations were used for this purpose.

4.3 Statistical Reliability

Reliability refers to the reliability of any test, to obtaining the same results if the same measurement is used more than one time under the same conditions. In addition, the reliability means when a certain test was applied on a number of individuals and the marks of every one were counted; then the same test applied another time on the same group and the same marks were obtained; then we can describe this test as reliable.

In addition, reliability is defined as the degree of the accuracy of the data that the test measures. Here are some of the most used methods for calculating the reliability:

. Alpha-Cronbach coefficient.

On the other hand, validity also is a measure used to identify the validity degree among the respondents according to their answers on certain criterion. The validity is counted by a number of methods, among them is the validity using the square root of the (reliability coefficient). The value of the reliability and the validity lies in the range between (0-1). The validity of the questionnaire is that the tool should measure the exact aim, which it has been designed for.

In this study the validity calculated by using the following equation:

$$Validity = \sqrt{Re\,liability}$$

The reliability coefficient was calculated for the measurement, which was used in the questionnaire using Alpha-Cronbach coefficient Equation as the following:

For calculating the validity and the reliability of the questionnaire from the above equation, the researcher distributed the questionnaires to 30 respondents to calculate the reliability coefficient using the Alpha-Cranbach coefficient; the results have been showed in the following table

Reliability Statistics

Cranbach Alpha	N of Items
0.89	15

Statement No.(1): Semantic mapping strategy is a good teaching technique for presenting vocabulary lessons .

Table No (4-1) The Frequency Distribution for the Respondent' s Answers of Question No.(1)

Valid	Frequency	Percentage
Strongly agree	40	57.1
Agree	25	35.7
Uncertain	0	0
Disagree	3	4.3
Strongly disagree	2	2.9
Total	**70**	**100**

It is clear from the above table No.(4.1) and figure No (4.1) that there are (40) persons in the study's sample with percentage (57.1%) strongly agreed with " Semantic mapping strategy is a good teaching technique for reviewing vocabulary lesson . ". There are (25) persons with percentage (35.7%) agreed with that, and (0) persons with percentage (00.0%) were not sure that, and (3) persons with percentage (3.4%) disagreed. and (2) persons with 2.9% are strongly disagree.

Figure No (4-1) The Frequency Distribution for the Respondent' s Answers of Question No.(1)

Statement No.(2): Semantic mapping strategy helps students acquire more vocabulary.

Table No (4-2) The Frequency Distribution for the Respondent' s Answers of Question No.(2)

Valid	Frequency	Percentage
Strongly agree	28	40
agree	27	38.6
Uncertain	5	7.1
disagree	3	2.3
Strongly disagree	7	10
Total	**70**	**100**

It is clear from the above table No.(4.2) and figure No (4.2) that there are (28) persons in the study's sample with percentage (40.0%) strongly agreed with " developing vocabulary learning among secondary school students if compared with semantic mapping strategy. ". There are (27) persons with percentage (38.6%) agreed with that, and (5) persons with percentage (7.2%) were not sure that, and (3) persons with percentage (2.3%) disagreed. and (7) persons with 10.0% are strongly disagree

Figure No (4-2) The Frequency Distribution for the Respondents Answers of Question No.(2)

Statement No.(3): Semantic mapping strategy helps students remember the word ground in semantic sets for a long time.

Table No (4-3) The Frequency Distribution for the Respondent' s Answers of Question No.(3)

Valid	Frequency	Percentage
Strongly agree	40	57.1
agree	25	35.7
Uncertain	0	0
disagree	2	2.9
Strongly disagree	3	4.3
Total	**70**	**100**

Figure (4-3) The Frequency Distribution for the Respondent' s Answers of Question No.(3)

It is clear from the above table No.(4.3) and figure No (4.3) that there are (40) persons in the study's sample with percentage (57.1%) strongly agreed with " Semantic maps can help students remember the word ground in semantic sets for a long time. ". There are (25) persons with percentage (35.7%) agreed with that, and (0) persons with percentage (0.00%) were not sure that, and (2) persons with percentage (2.9%) disagreed. and (3) persons with 3.4% are strongly disagree

Statement No.(4): Semantic mapping strategy enhances the students' ability to learn more vocabulary

Table No (4-4) The Frequency Distribution for the Respondent' s Answers of Question No.(4)

Valid	Frequency	Percentage
Strongly agree	20	28.6
agree	40	57.2
Uncertain	0	0
disagree	5	7.1
Strongly disagree	5	7.1
Total	**70**	**100**

It is clear from the above table No.(4.4) and figure No (4.4) that there are (20) persons in the study's sample with percentage (28.6%) strongly agreed with " The grouping help students remember the related things . . ". There are (40) persons with percentage (57.2%) agreed with that, and (0) persons with percentage (0.00%) were not sure that, and (5) persons with percentage (7.1%) disagreed. and (5) persons with 7.1% are strongly disagree

Figure No (4-4) The Frequency Distribution for the Respondent' s Answers of Question No.(4)

Statement No.(5): Learning vocabulary by using semantic mapping strategy makes the students creative.

Table No (4-5) The Frequency Distribution for the Respondent' s Answers of Question No.(5)

Valid	Frequency	Percentage
Strongly agree	18	25.7
Agree	40	57.2
Uncertain	5	7.1
Disagree	2	2.9
Strongly disagree	5	7.1
Total	**70**	**100**

It is clear from the above table No.(4.5) and figure No (4.5) that there are (18) persons in the study's sample with percentage (25.7%) strongly agreed with " Semantic mapping strategy helps the students retain the word better . ". There are (40) persons with percentage (57.2%) agreed with that, and (5) persons with percentage (7.1%) were not sure that, and (2) persons with percentage (2.9%) disagreed. and (5) persons with 7.1% are strongly disagree
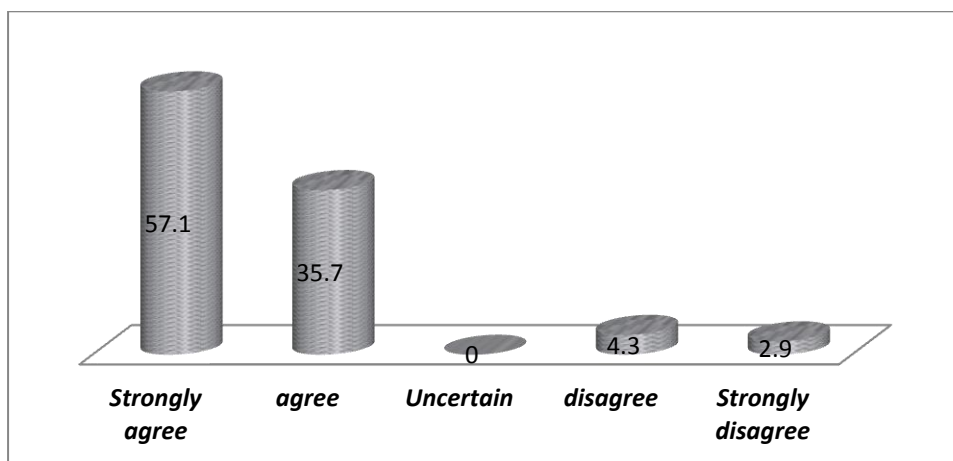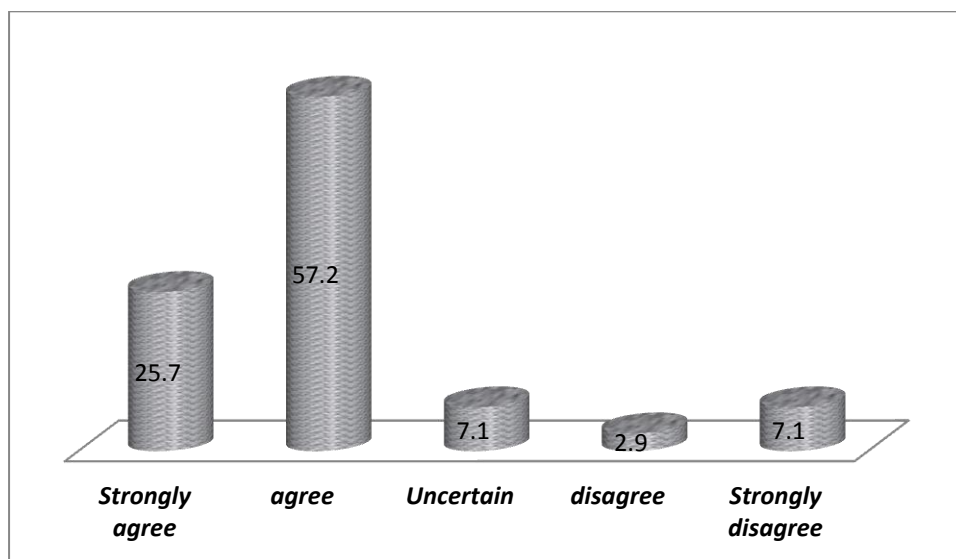

Figure No (4-5) The Frequency Distribution for the Respondent' s Answers of Question No.(5)

Statement No.(6): Semantic maps assume that learners can easily acquire large vocabulary size .

Table No (4-6) The Frequency Distribution for the Respondent' s Answers of Question No.(6)

Valid	Frequency	Percentage
Strongly agree	40	57.1
agree	25	35.7
Uncertain	2	2.9
disagree	3	4.3
Strongly disagree	0	0
Total	**70**	**100**

It is clear from the above table No.(4.6) and figure No (4.6) that there are (40) persons in the study's sample with percentage (57.1%) strongly agreed with (Semantic maps assume that learners can easily acquire large vocabulary size . ". There are (25) persons with percentage (35.7%) agreed with that, and (2) persons with percentage (2.9%) were not sure that, and (3) persons with percentage (3.4%) disagreed. and (0) persons with 0.0% are strongly disagree
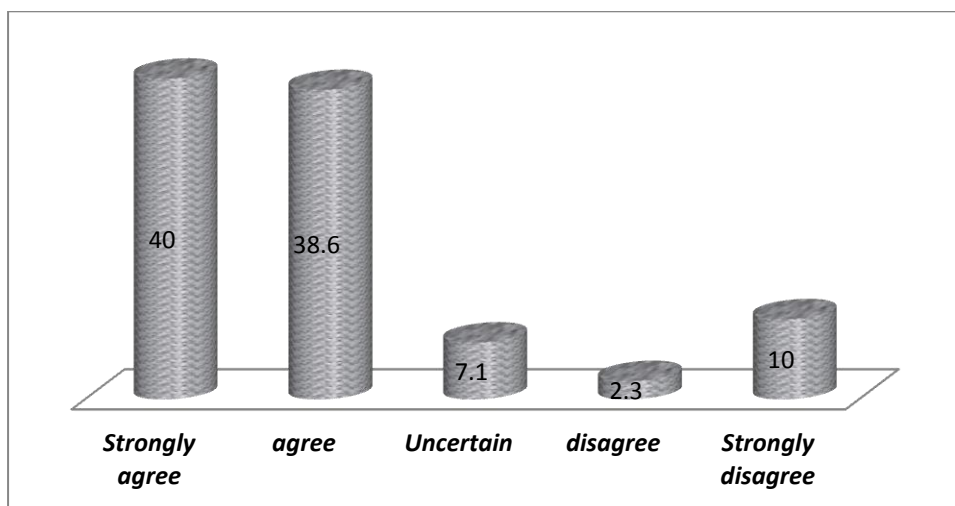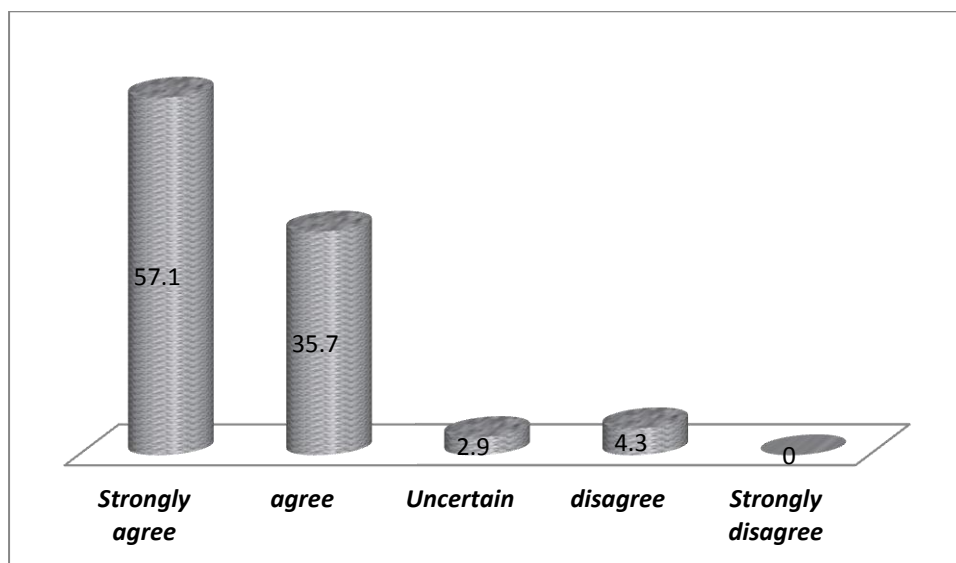

Figure No (4-6) The Frequency Distribution for the Respondent' s Answers of Question No.(6)

Statement No.(7): Semantic mapping improve student's logic.

Table No (4-7) The Frequency Distribution for the Respondent' s Answers of Question No.(7)

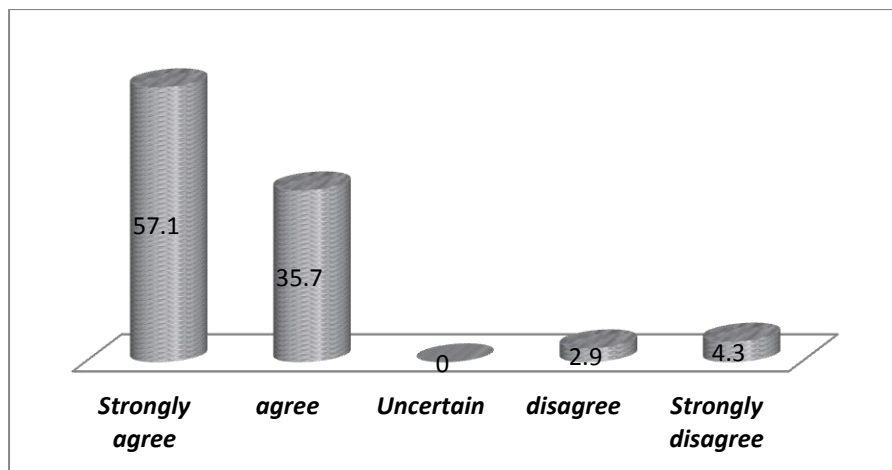| Valid	Frequency	Percentage
Strongly agree	50	71.4
Agree	15	21.5
Uncertain	1	1.4
Disagree	4	5.7
Strongly disagree	0	0
Total	**70**	**100**

Figure (4-7) The Frequency Distribution for the Respondent's Answers of Question No.(7)

It is clear from the above table No.(4.7) and figure No (4.7) that there are (50) persons in the study's sample with percentage (71.4%) strongly agreed with " Semantic mapping improve student's logic. ". There are (15) persons with percentage (21.5%) agreed with that, and (1) persons with percentage (1.4%) were not sure that, and (4) persons with percentage (5.7%) disagreed. and (0) persons with 0.0% are strongly disagree

Statement No.(8): Semantic mapping leads students to relate new words to their own experience and prior knowledge .

Table No (4-8) The Frequency Distribution for the Respondent's Answers of Question No.(8)

Valid	Frequency	Percentage
Strongly agree	30	42.9
agree	29	41.4
Uncertain	3	4.3
disagree	4	5.7
Strongly disagree	4	5.7
Total	**70**	**100**

Figure No (4-8) The Frequency Distribution for the Respondent's Answers of Question No.(8)

It is clear from the above table No.(4.8) and figure No (4.8) that there are (30) persons in the study's sample with percentage (42.9%) strongly agreed with " Semantic mapping leads students to relate new words to their own experience and prior knowledge . ". There are (29) persons with percentage (41.4%) agreed with that, and (3) persons with percentage (4.5%) were not sure that, and (4) persons with percentage (5.7%) disagreed. and (4) persons with 5.7% are strongly disagree
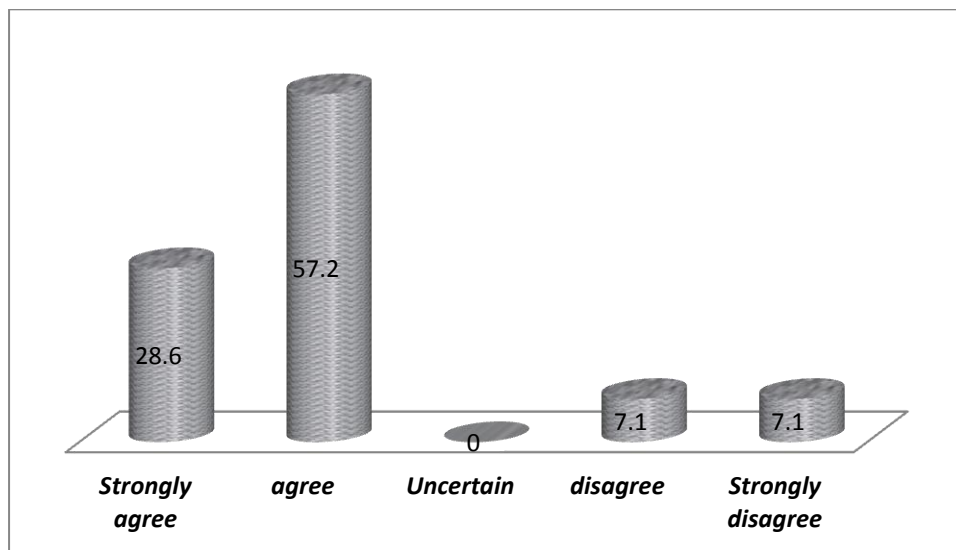
Statement No.(9): Semantic mapping helps students recall the word more easily .

Table No (4-9) The Frequency Distribution for the Respondent' s Answers of Question No.(9)

Valid	Frequency	Percentage
Strongly agree	40	57.1
Agree	25	35.7
Uncertain	2	2.9
disagree	3	4.3
Strongly disagree	0	0
Total	**70**	**100**

Figure No (4-9) The Frequency Distribution for the Respondent' s Answers of Question No.(9)

It is clear from the above table No.(4.9) and figure No (4.9) that there are (40) persons in the study's sample with percentage (57.1%) strongly agreed with " Semantic mapping helps students recall the word more easily . ". There are (25) persons with percentage (35.7%) agreed with that, and (2) persons with percentage (2.9%) were not sure that, and (3) persons with percentage (4.3%) disagreed. and (0) persons with 0.0% are strongly disagree

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Statement No.(10): It's easier to remember words if they are grouped then learning un related words .

Table No (4-10) The Frequency Distribution for the Respondent's Answers of Question No.(10)

Valid	Frequency	Percentage
Strongly agree	20	28.6
Agree	29	41.4
Uncertain	10	14.3
Disagree	10	14.3
Strongly disagree	1	1.4
Total	**70**	**100**
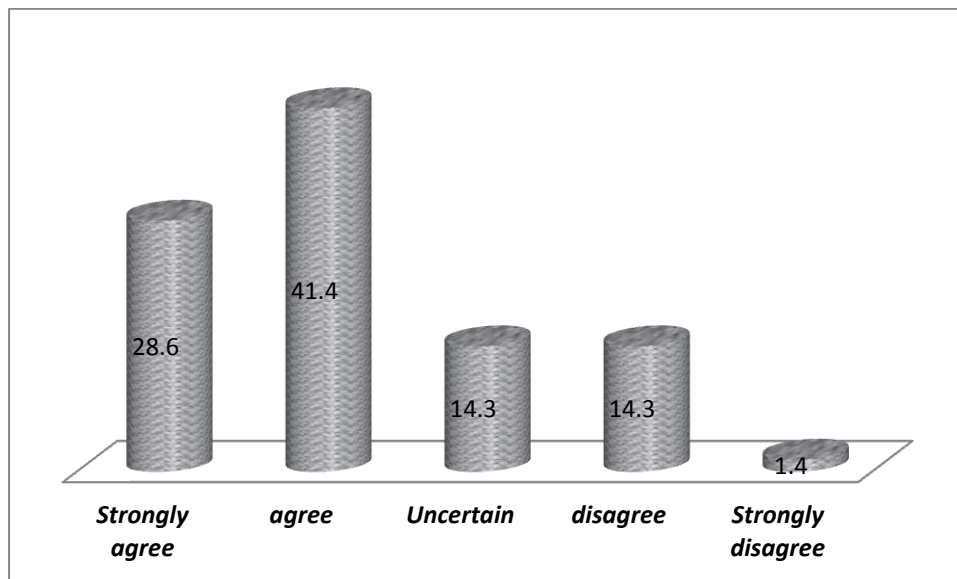
From the above table No.(4.10) and figure No (4.10) It is clear that there are (20) persons in the study's sample with percentage (28.6%) strongly agreed with " It's easier to remember words if they are grouped then learning un related words . ". There are (29) persons with percentage (41.4%) agreed with that, and (10) persons with percentage (14.3%) were not sure that, and (10) persons with percentage (14.3%) disagreed. and (1) persons with 1.4% are strongly disagree

Statement No. (11): It is believed that semantic mapping is useful in developing vocabulary learning.

Table No (4-11) The Frequency Distribution for the Respondent's Answers of Question No.(11)

Valid	Frequency	Percentage
Strongly agree	21	30.0
agree	39	55.7
Uncertain	4	5.7
disagree	2	2.9
Strongly disagree	4	5.7
Total	**70**	**100**

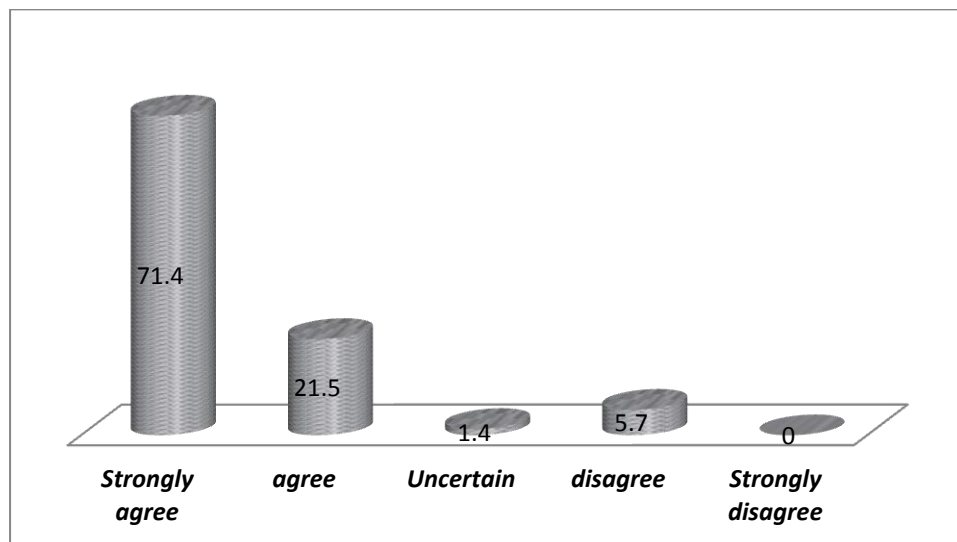**Figure No (4-11) The Frequency Distribution for the Respondent's Answers of Question No.(11)**

From the above table No.(4.11) and figure No (4.11)It is clear that there are (20) persons in the study's sample with percentage (30.0%) strongly agreed with " I believe that semantic mapping is useful in developing vocabulary learning . ". There are (40) persons with percentage (55.7%) agreed with that, and (4) persons with percentage (5.7%) were not sure that, and (2) persons with percentage (2.9%) disagreed. and (7) persons with 5.7% are strongly disagree

Statement No.(12): Semantic mapping strategy motivates learners to think more.

Table No (4-12) The Frequency Distribution for the Respondent's Answers of Question No.(12)

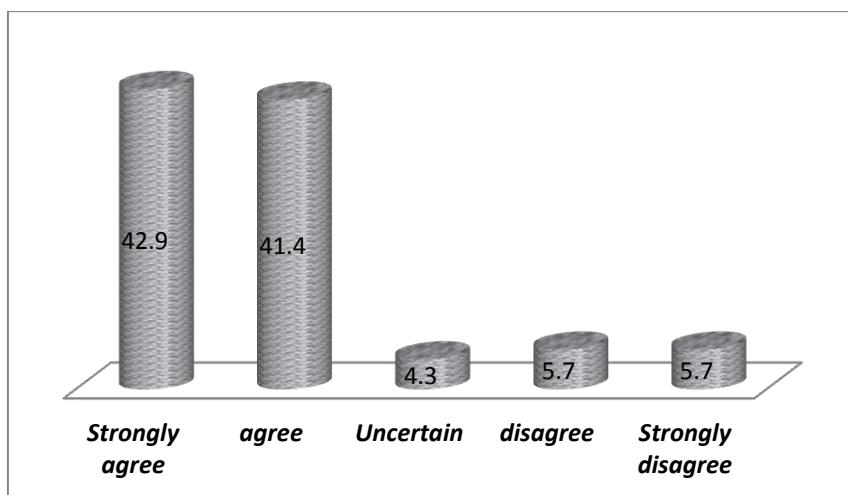| Valid	Frequency	Percentage
Strongly agree	34	50.0
agree	20	28.6
Uncertain	5	7.1
disagree	7	10
Strongly disagree	3	4.3
Total	**70**	**100**
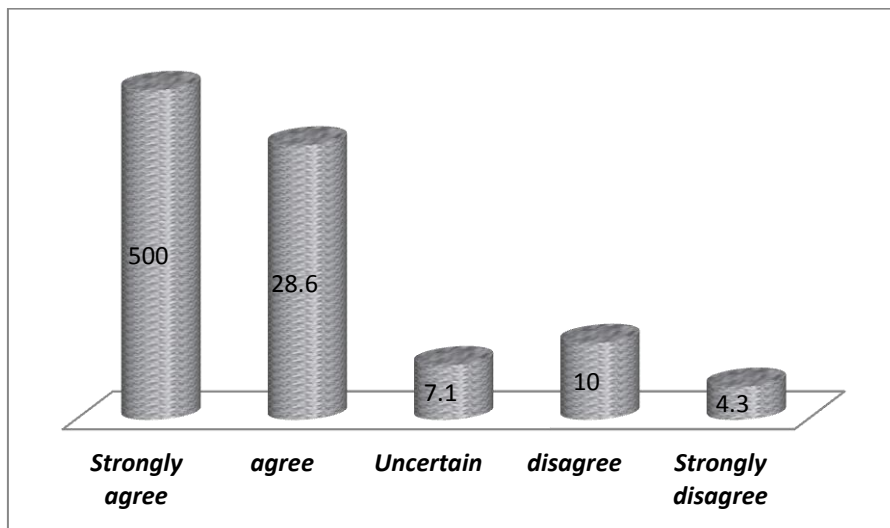
Figure No (4-12) The Frequency Distribution for the Respondent's Answers of Question No.(12)

From the above table No.(4.12) and figure No (4.12) It is clear that there are (35) persons in the study's sample with percentage (50.0%) strongly agreed with " Semantic mapping strategy motivates learners to think more. . ". There are (20) persons with percentage (28.6%) agreed with that, and (5) persons with percentage (7.1%) were not sure that, and (7) persons with percentage (10.0%) disagreed. and (3) persons with 3.4% are strongly disagree

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xStatement No.(1 3): Semantic mapping can be new vocabulary teaching and learning approach.

Table No (4-13) The Frequency Distribution for the Respondent' s Answers of Question No.(13)

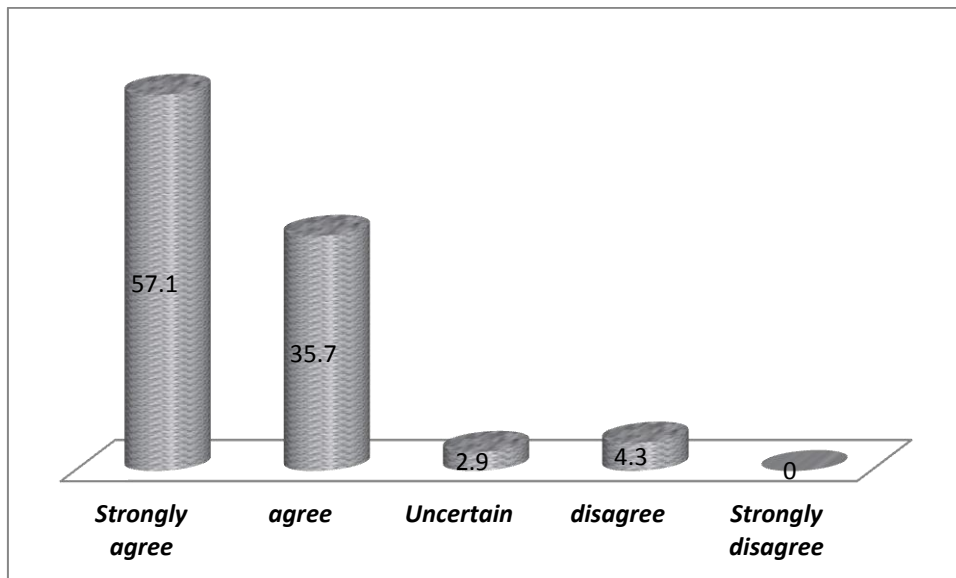| Valid	Frequency	Percentage
Strongly agree	27	38.6
agree	32	45.7
Uncertain	7	10
disagree	3	4.3
Strongly disagree	1	1.4
Total	**70**	**100**
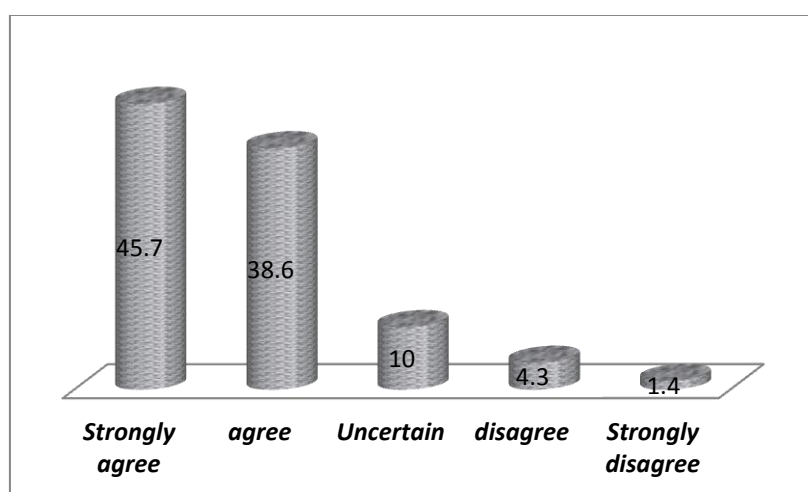
Figure No (4-13) The Frequency Distribution for the Respondent' s Answers of Question No.(13)

It is clear from the above table No.(4.13) and figure No (4.13) that there are (32) persons in the study's sample with percentage (45.7%) strongly agreed with " Semantic mapping can be new vocabulary teaching and learning approach. ". There are (27) persons with percentage (38.6%) agreed with that, and (7) persons with percentage (10.0%) were not sure that, and (3) persons with percentage (3.4%) disagreed. and (1) persons with 1.4% are strongly disagree

Statement No. (1 4): As a new way of vocabulary teaching and learning. I think that semantic mapping is interesting.

Table No (4-14) The Frequency Distribution for the Respondent' s Answers of Question No.(14)

Valid	Frequency	Percentage
Strongly agree	40	57.1
agree	25	35.7
Uncertain	0	0
disagree	3	4.3
Strongly disagree	2	2.9
Total	**70**	**100**
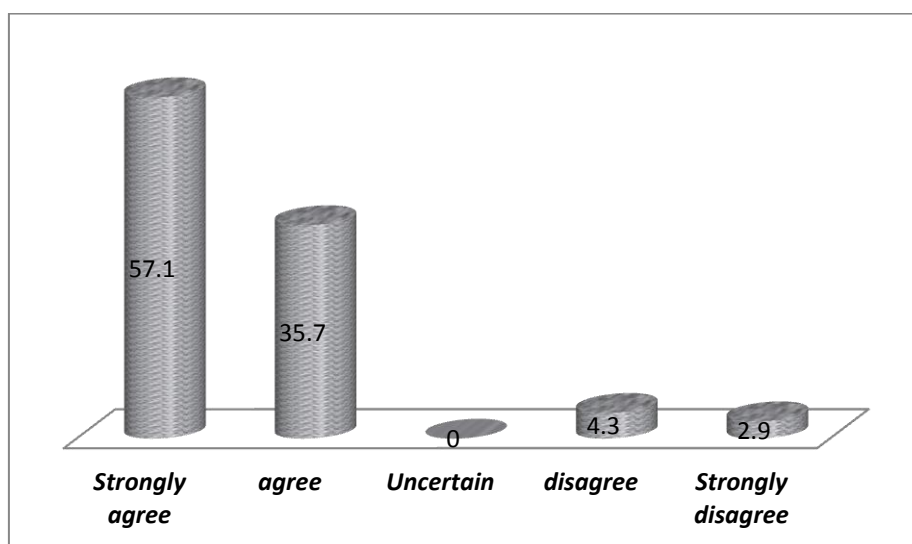
Figure No (4-14) The Frequency Distribution for the Respondent' s Answers of Question No.(14)

It is clear from the above table No.(4.14) and figure No (4.14) that there are (40) persons in the study's sample with percentage (57.1%) strongly agreed with " As a new way of vocabulary teaching and learning . I think that semantic mapping is interesting. . ". There are (25) persons with percentage (35.7%) agreed with that, and (0) persons with percentage (00.0%) were not sure that, and (3) persons with percentage (3.4%) disagreed. and (2) persons with 2.9% are strongly disagree

Statement No.(15): Teaching vocabulary via Semantic mapping strategy helps students remember vocabulary easily.

Table No (4-15) The Frequency Distribution for the Respondent' s Answers of Question No.(15)

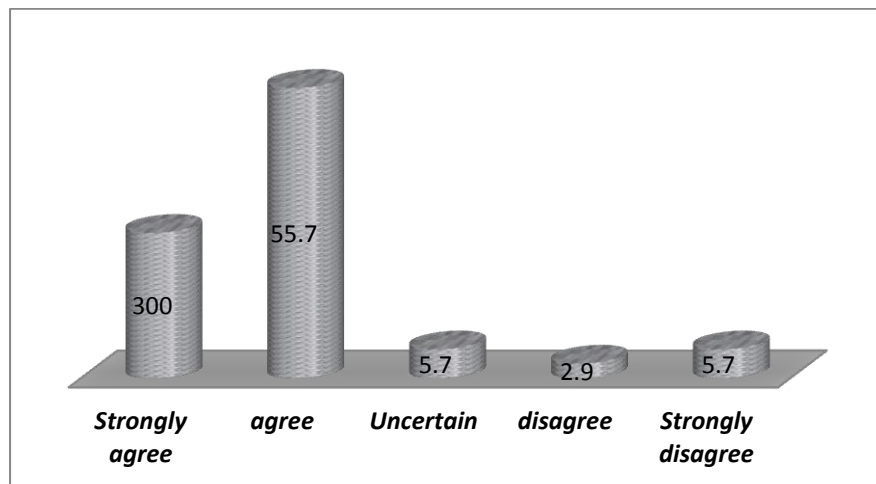| Valid	Frequency	Percentage
Strongly agree	35	50
agree	30	42.9
Uncertain	0	0
disagree	2	2.9
Strongly disagree	3	4.2
Total	**70**	**100**
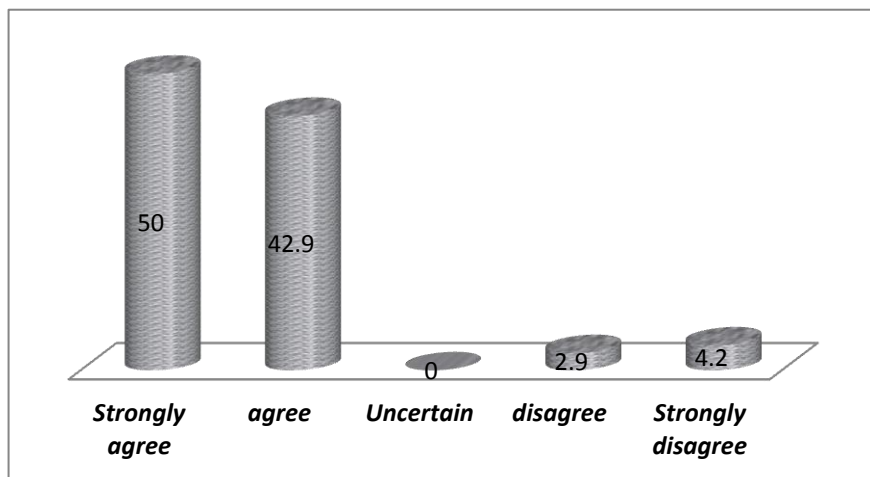
Figure No (4-15) The Frequency Distribution for the Respondent' s Answers of Question No.(15)

It is clear from the above table No.(4.15) and figure No (4.15) that there are (35) persons in the study's sample with percentage (50.0%) strongly agreed with " Teaching vocabulary via Semantic mapping strategy helps students remember vocabulary easily. . ". There are (30) persons with percentage (42.9%) agreed with that, and (0) persons with percentage (00.0%) were not sure that, and (2) persons with percentage (2.9%) disagreed. and (3) persons with 4.2% are strongly disagree

Table No (4-16)Chi-Square Test Results for Respondents' Answers of the Questions of the Hypothesis:

No.	Statement	mean	SD	Chi square	p-value
1.	Semantic mapping strategy is a good teaching technique for reviewing vocabulary lesson .	3.6	0.3	27	0.000
2	The traditional presentation of vocabulary list is found to be not effective in developing vocabulary learning among secondary school students if compared with semantic mapping strategy.	3.4	0.7	25.7	0.000
3	Semantic maps can help students remember the word ground in semantic sets for a long time.	2.5	0.2	23	0.000
4.	The grouping help students remember the related things .	2.9	5.6	26	0.000
5	Semantic mapping strategy helps the students retain the word better .	2.5	1.5	32	0.000
6	Semantic maps assume that learners can easily acquire large vocabulary size .	3.2	2	25	0.000
7	Semantic mapping improve student's logic.	2.5	0.6	28	0.00
8	Semantic mapping leads students to relate new words to their own experience and prior knowledge .	2.6	0.8	27.7	0.00
9	Semantic mapping helps students recall the word more easily .	2.4	0.9	25.7	0.001
10	Its easier to remember words if they are grouped then learning un related words .	2.5	1.4	17	0.00
11	I believe that semantic mapping is useful in developing vocabulary learning .	2.7	2.6	15	0.00

12	Semantic mapping strategy motivates learners to think more.	2.8	.80	20	0.001
13	Semantic mapping can be new vocabulary teaching and learning approach.	2.5	.70	21	0.008
14	As a new way of vocabulary teaching and learning . I think that semantic mapping is interesting.	3.5	2.7	21	0.00
15	Teaching vocabulary via Semantic mapping strategy helps students remember vocabulary easily.	2.4	4.2	33	0.00

The calculated value of chi-square for the significance of the differences for the respondents' answers in the No (1) question was (27) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (12.4). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "Semantic mapping strategy is a good teaching technique for reviewing vocabulary lesson .

The calculated value of chi-square for the significance of the differences for the respondents' answers in the No (2) question was (25.7) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (12.4). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "The traditional presentation of vocabulary list is found to be not effective in developing vocabulary learning among secondary school students if compared with semantic mapping strategy.

The calculated value of chi-square for the significance of the differences for the respondents' answers in the No (3) question was (23) which is greater than the tabulated value of chi-square at the degree of freedom (4)

and the significant value level (5%) which was (12.4). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "Semantic maps can help students remember the word ground in semantic sets for a long time.

The calculated value of chi-square for the significance of the differences for the respondents' answers in the No (4) question was (26) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (12.4). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "The grouping help students remember the related things .

The calculated value of chi-square for the significance of the differences for the respondents' answers in the No (5) question was (32) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (12.4). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement " Semantic mapping strategy helps the students retain the word better .

The calculated value of chi-square for the significance of the differences for the respondents' answers in the No (6) question was (25) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (12.4). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "Semantic maps assume that learners can easily acquire large vocabulary size .

The calculated value of chi-square for the significance of the differences for the respondents' answers in the No (7) question was (28) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (12.4). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "Semantic mapping improve student's logic.

The calculated value of chi-square for the significance of the differences for the respondents' answers in the No (8) question was (27.7) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (12.4). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "Semantic mapping leads students to relate new words to their own experience and prior knowledge .

The calculated value of chi-square for the significance of the differences for the respondents' answers in the No (9) question was (25.7) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (12.4). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "Semantic mapping helps students recall the word more easily .

The calculated value of chi-square for the significance of the differences for the respondents' answers in the No (10) question was (35) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (12.4). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed

with the statement "Its easier to remember words if they are grouped then learning un related words .

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (1) was (17) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "I believe that semantic mapping is useful in developing vocabulary learning .

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (2) was (15) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "Semantic mapping strategy motivates learners to think more.

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (3) was (20) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "Semantic mapping can be new vocabulary teaching and learning approach.

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (4) was (21) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the

significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "As a new way of vocabulary teaching and learning . I think that semantic mapping is interesting.

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (5) was (21) which is greater than the tabulated value of chi-square at the degree of freedom (5) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement "Teaching vocabulary via Semantic mapping strategy helps students remember vocabulary easily.

Pre- Post Tests Analysis

Before the treatment, a pretest (*PET test*) was given to the participants in order to guarantee their homogeneity and determine their ability and knowledge. The test which consisted of 5 questions separated in different parts was administrated to both groups. The students" individual scores on the proficiency test (50 scores for the experimental group and 50 scores for the control group) are listed in following table (4.17)

Table (4.17). The show Scores of the Experimental and Control Groups on the Pretest and Posttests

Pre test			Post test	
Experimental group	Control group		Experimental group	Control group
23	34		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 (4.18) : Descriptive Statistics for pre and post for both experimental and control tests

	Mean	Std. Deviation	N
post control	24.5	3.4	30
Pre control	23.3	7.2	30
Post exp	38.9	7.3	30
Pre exp	25.2	5.5	30

Resource: the researcher

The following figure illustrates the comparison of the mean values of both groups on pretest and posttest for the students' test
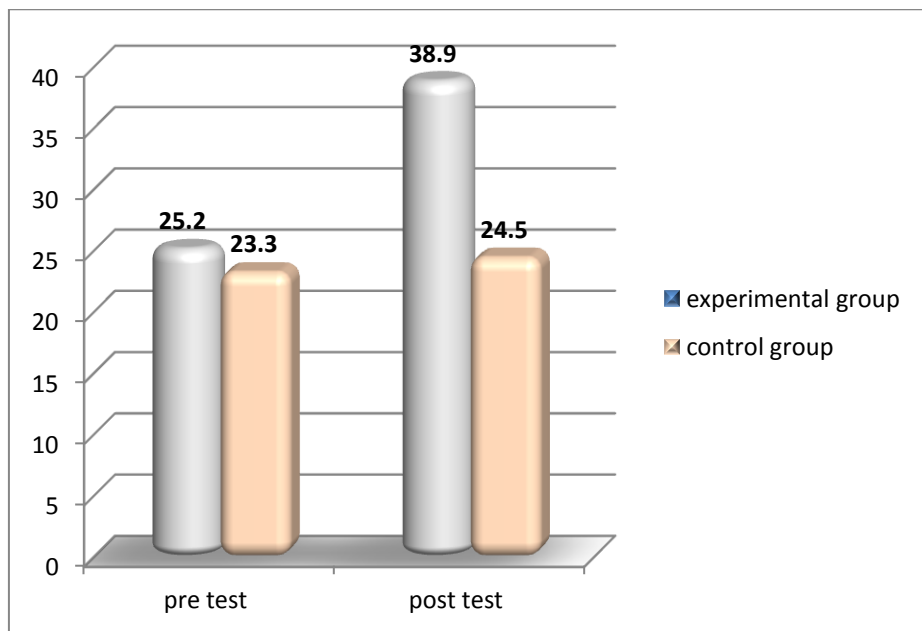
Figure (4.16) Comparison of the Mean Values of both Groups in Pre-test and Post-test

According to Figure 1, the performance of the experimental group was better than the control group. There is a significant difference between their mean values after the treatment. Conclude that our strategy has been helpful and that our student's knowledge has been improved

Table (4.19) T-test for the differences between the two means

groups	x̄	SD	DF	T-value	p-value	95% confidence. Interval	
						L	U
experimental	25.2	5.4	29	2.862		-.33	6.5
control	23.3	5.2	29	2.824	0.324	-.34	9.7

Resource: the researcher

Table (4.19). T-test analysis of the means of two groups in the pre test

For the scores gained from the pretest (*PET test*), the mean value was calculated. Mean for the control group was (23.3) and for the experimental group it was (25.2). Moreover a T-test was employed on these scores for hypothesis testing purposes. As the result of T-test suggests (P-value 0.421) being greater than 0.05), our null hypothesis is accepted since we have not applied the intended strategy. There is not significance different between two groups

Table(4.20)T-Test Analysis of the Means of Two Groups in the Post-test

groups	x̄	SD	DF	T-value	p-value	95% confidence. Interval	
						L	U
experimental	**38.9**	**7.088**	**24**		**0.002**	**3.32**	**12.72**
control	**24.5**						
		7.966	**24**	**3.54**		**3.30**	**11.40**

Resource: the researcher

For the scores gained from the post-test, the mean value was calculated. Mean for the control group was (23.22) and for the experimental group it was (39.64). Moreover a T-test was employed on these scores for hypothesis testing purposes. As the result of T-test suggests (P-value 0.008 being less than 0.05), there is a meaningful difference between two groups. Therefore the null hypothesis is rejected and the alternative hypotheses

4.5 Summary of The Chapter

In this chapter two tools were used to test the study hypotheses. A test for secondary school students and a questionnaire which was given to secondary school English Language teachers both of them from Bahry Locality. The results of the study were analyzed statistically by using statistical packages for social science (SPSS), in term of standard deviations.

Chapter Five

Main Findings, Conclusions, Recommendations,

And Suggestions For Further Studies

Chapter Five

Main Findings, Conclusions, Recommendations, And Suggestions

For Further Research

5.0 Introduction

In this final chapter, the results of the study obtained from the questionnaire and test are presented and conclusion regarding the results is deduced. The chapter is then followed by recommendations, and suggestions for further researches

5.1 Main Findings

In this part, the results obtained from the questionnaire and test are discussed in relation to research questions. Following are the main findings of the study

1. It is found that the strategies of using semantic mapping helps 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 strategy 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.

3. The findings also show that strategies of using semantic mapping is effective in learning vocabulary. It is a good teaching technique for presenting vocabulary lessons. This strategy is a new vocabulary teaching and learning approach.

4. Generally the results of questionnaire and test show that strategies of using semantic mapping is effective for secondary school students on vocabulary learning.

5. Strategies of using semantic mapping improves the student's logic, because students can put the words with the related meaning into a map and generate or present words logically. In contrast, it is difficult for students to remember the unrelated words.

5-2 Conclusions

After ending the present study and analyzing the results of the questionnaire and test, strategies of using semantic mapping proved to be effective in developing the secondary school students' oral vocabulary learning.

1- Regarding the results of the hypotheses verification and the discussion, it could be concluded that there is a significant effect of using strategies of semantic mapping on students' vocabulary achievement.

2- With regard to the study hypotheses, there were no statistically significance different in the mean average scores of vocabulary test between students who were to be taught by using semantic mapping strategy (experimental group) and those who were to be able to be taught traditionally (control group).

3- Regarding the results of teachers' questionnaire, and students' test, strategies of using semantic mapping affects the development of vocabulary learning. The results of the questionnaire and test indicated that the semantic mapping is an effective tool in developing vocabulary learning, so this hypothesis is accepted.

4- Regarding the students' test, the experimental group had positive attitudes towards using strategies of semantic mapping in vocabulary learning

5.3 Recommendations

In the light of the results and conclusion of the present study, the following recommendations are suggested,

1- Strategies of using semantic mapping in teaching vocabulary is highly recommended to develop vocabulary learning.

2- The study recommended that using the strategies of semantic mapping enhances students' creativity in learning vocabulary

3- The study recommended that the ministry of education should provide English language teachers with sessions how to use strategies of semantic mapping in teaching vocabulary.

4- English language teachers should use active learning methods and strategies like semantic mapping in their teaching.

5- Teachers of English language should develop their student's vocabulary learning through strategies of using semantic mapping

6- This study recommended that the using of strategies of semantic, mapping for developing other linguistics competences.

7- Curriculum designers can integrate various strategies of uingsemantic mapping in the textbook which will facilitate better comprehension of students' vocabulary learning.

8- Teachers should encourage using pair work and group work as part of strategies of using semantic mapping to provide opportunities for meaningful interaction and facilitate vocabulary learning.

5.4 Suggestions for further Research

1. In the light of the present study, more research is needed to further explain the effectiveness of the using strategies of semantic mapping on developing grammar.

2. A study should be done to examine the attitudes of EFL teachers towards the use of strategies of using semantic mapping in other aspects of teaching and learning.

3. Further research may include an examination of the effectiveness of the use of strategies of using semantic mapping in e-learning based on computer generated semantic concept maps.

4. Further research may examine the impact of using strategies of semantic mapping as an assessment tool.

5. Further research may examine the effectiveness of using other types of graphic organizers on developing vocabulary learning.

6. Further research may examine the effect of ESP vocabulary mastering through the strategies of semantic mapping on students' vocabulary learning.

5.5Summary of The Chapter

In this chapter the results of the study are deduced from the questionnaire and the test , the chapter is also followed by recommendations and suggestions for further researches.

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The Appendices

Appendix (1)

Teachers'Questionnaire

Dear teacher :

This questionnaire is designed to gather information for educational research in teaching English as a foreign language. The research questions focus on using semantic mapping strategies to develop vocabulary learning. Your genuine and honest response to the questionnaire is valuable. Thus, you are kindly requested to read the statements carefully and give your responses to each statement. The information will be kept strictly confidential and will not be used to assess you any way.

I am extremely grateful to your cooperation .Thank you in advance.

Personal Information: please use a tick (√)to fill in the appropriate space

1.Gender:

a. Male   (   )   b. Female   (   )

2.Qualificatios:

a. BA   (   )   b. MA.   (   )   c. ph.D   (   )

3. Work experience:

a. 1- 5 (   ) b. 6 - 10   (   ) c. 10- 15   (   ) d. more than 15 (   )

4. Age:

a.25 -35 (   ) b.36 – 46 (   ) c.47 – 57   (   ) d. more than **60 ( )**

Hypothesis one: Semantic mapping strategies help students significantly to enrich their vocabulary.

NO	Statements	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	Learning vocabulary by using semantic mapping strategy makes students create more new words.					
2	Semantic Maps assume that learners can easily acquire more vocabulary .					
3	Semantic Mapping strategy improve the students vocabulary.					
4	Semantic Mapping strategy enhance student's ability to learn English vocabulary.					
5	Learning vocabulary by using semantic mapping strategy helps students remember new vocabulary words.					

Hypothesis two: Semantic Mapping strategies can be used for learning different parts of speech.(Nouns, verbs, adjectives and affixes)

NO	Statements	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	The grouping words helps students remember the related things.					
2	It is difficult to forget vocabulary learned through semantic mapping strategy.					
3	Semantic mapping strategy motivate learners to acquire different parts of speech.					
4	It is believed that semantic mapping is useful in developing vocabulary learning.					
5	Semantic Mapping helps the students recall the word more easily					

Hypothesis three: Teachers of English langue are not aware of the importance of using semantic mapping strategies in learning vocabulary.

NO	Statements	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	Semantic mapping strategy is a new way English Language teachers.					
2	As a new way of vocabulary teaching and learning, I think that semantic mapping is an interesting way.					
3	Teachers of English language should be aware of using semantic mapping significantly.					
4	Teaching vocabulary via semantic mapping strategy helps students remember vocabulary easily.					
5	Semantic mapping is a good teaching technique for presenting vocabulary lesson.					

Appendix (2)

### Pre-Test List for the Experimental Group (A)

Semantically Related Word List for Students

Instructions

1. Study the meaning of the following words on your own silently

2. You will be tested on the meaning of the words only.

3. You have 30 minutes to study the list.

List (1):

No	Word	Meaning . Eng	Meaning. Ara.
1	Tomato	shiny red skin that is eaten as a vegetable	طماطم
2	Aborigine	a vegetable with shiny dark purple skin and soft white flesh	اسود
3	Onion	a round vegetable with many layers inside other and a brown, red or white skin.	بصل
4	Carrot	along pointed orange root vegetable.	جزر
5	Cucumber	along vegetable with dark green skin and light green flesh, that is usually eaten raw.	خيار
6	Potato	A round white vegetable with a brown or red skin.	بطاطس
7	Peppers	A hollow fruit, usually red, green or yellow, eaten as a vegetable either raw or cooked.	فلفلية
8	Pumpkins	A large round vegetable with thick orange skin.	يقطين
9	Garlic	a vegetable of the onion family with a very strong taste and smell.	ثوم
10	Sweet potato	A root vegetable that looks like a red potato, but that is yellow inside and tastes sweet.	بامبي
11	Okra	(ladies fingers)the green seed cases of okra plant , eaten as vegetable.	بامية
12	Pears	A yellow or green fruit that is narrow at the top and wide at the bottom.	بازلاء
13	Molise	A long white root vegetable.	فجل أبيض
14	Beet	A plant with a root that is used as a vegetable.	بنجر

Vegetables

onion   garlic   okra   aborigine   potato
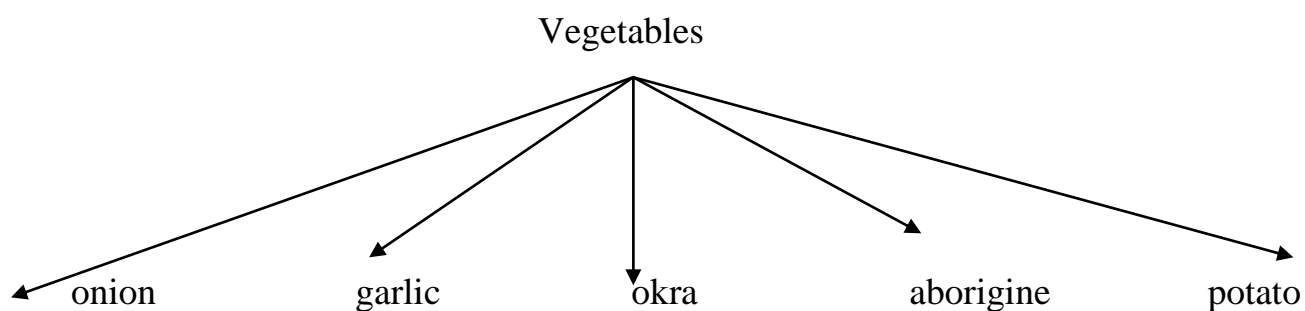
No	Word	Meaning. Eng	Meaning . Ara.
1	Cherries	A small soft round fruit with shiny red or black skin and large seed inside.	كرز
2	Banana	A long curved fruit with a thick yellow skin and soft flesh, that grows on trees in hot countries.	موز
3	Orange	A round citrus fruit with thick reddish-yellow and a lot of sweet juice,	برتقال
4	Apple	A round fruit with shiny red or green skin and firm white flesh.	تفاح
5	Mango	A tropical fruit with smooth yellow or red skin, soft orange flesh and large seed inside.	مانجو
6	Lemon	A yellow citrus fruit with a lot of sour juice.	ليمون
7	Fig	A soft sweet fruit that is full of small seeds and often eaten dried.	تين
8	Grapefruit	A large round yellow citrus fruit with a lot of slightly sour juice.	قريب
9	Pineapple	A large tropical fruit with thick rough skin, sweet yellow flesh with a lot of juice and stiff leaves on top.	أناناس
10	Strawberries	A soft red fruit with very small yellow seed on the surface, that grows on a low plant.	فراولة

List (3):

No	Word	Meaning. Eng.	Meaning. Ara.
1	Butterfly	a flying insect with a long thin body and four large brightly colored wings.	فراشه
2	Ant	A small insect that lives in highly organized groups.	نمله
3	Bee	A black and yellow flying insect that lives in large groups and makes honey.	نحله
4	Mosquito	A flying insect that bites humans and animals and sucks their blood.	بعوضه
5	Duck	A common bird that lives on or near water and has short legs.	بط/ بطه
6	Turkey	A large bird that is often kept for its mea teaten especially at chrisms in Britain.	ديك رومي
7	Chicken	A large bird that is often kept for its eggs or meat.	دجاجه
8	Pheasant	A large bird with a long tail, the male of which is brightly colored.	الدراج
9	Rabbit	A small animal with soft fur, long ears and a short tail.	ارنب
10	Elephant	A very large animal with thick grey skin , large years ,two outer teeth called tusks and along nose called a trunk.	فيل
11	Bat	An animal like a mouse with wings that flies and feeds at night.	خفاش/ وطواط
12	Lion	A large powerful animal of the cat family, that hunts in groups and lives in parts of Africa and Asia.	اسد

Pre-test

Hypothesis One:

Semantic Mapping Strategies help students significantly to enrich their English vocabulary.

Name --

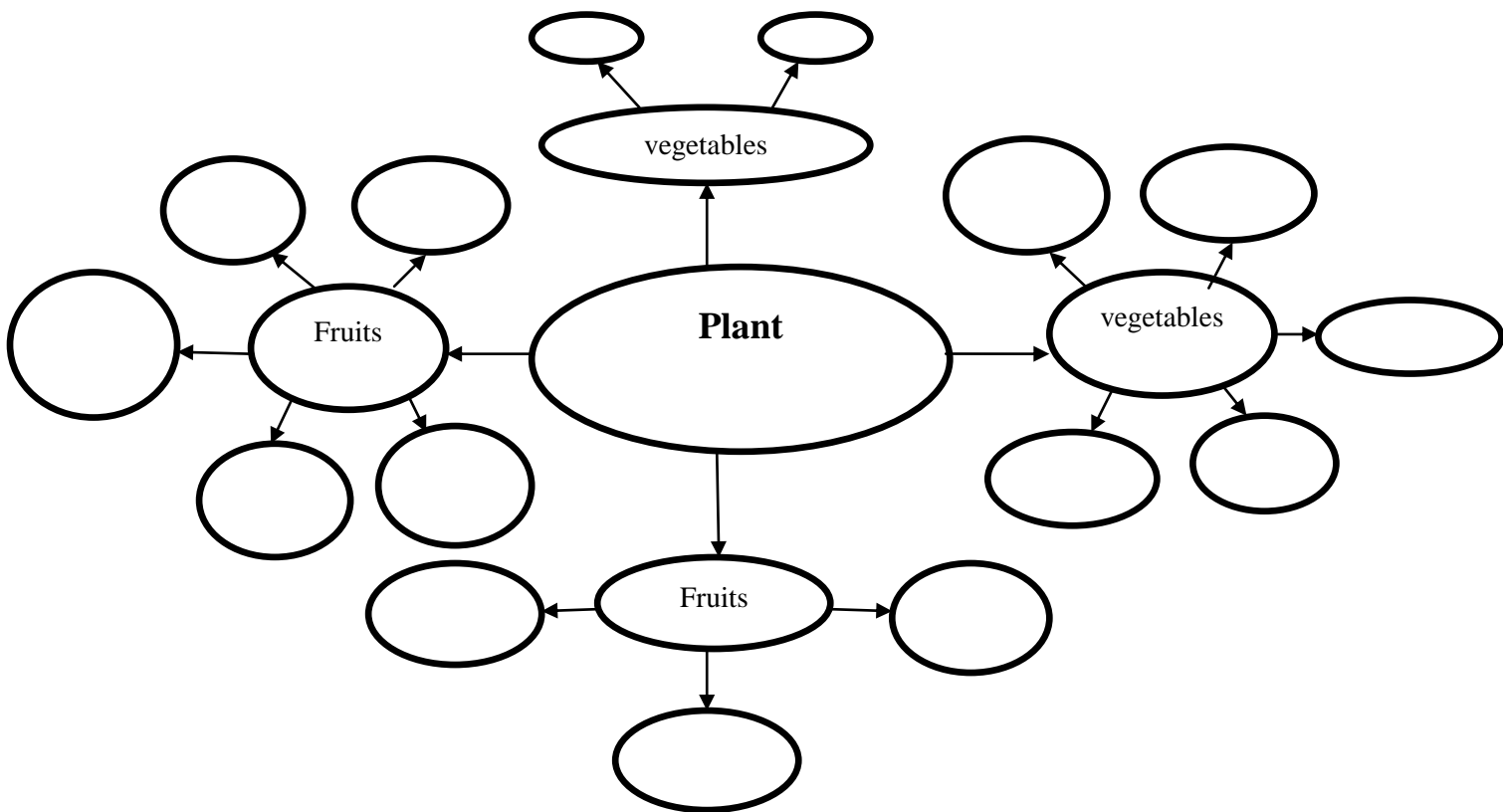School---
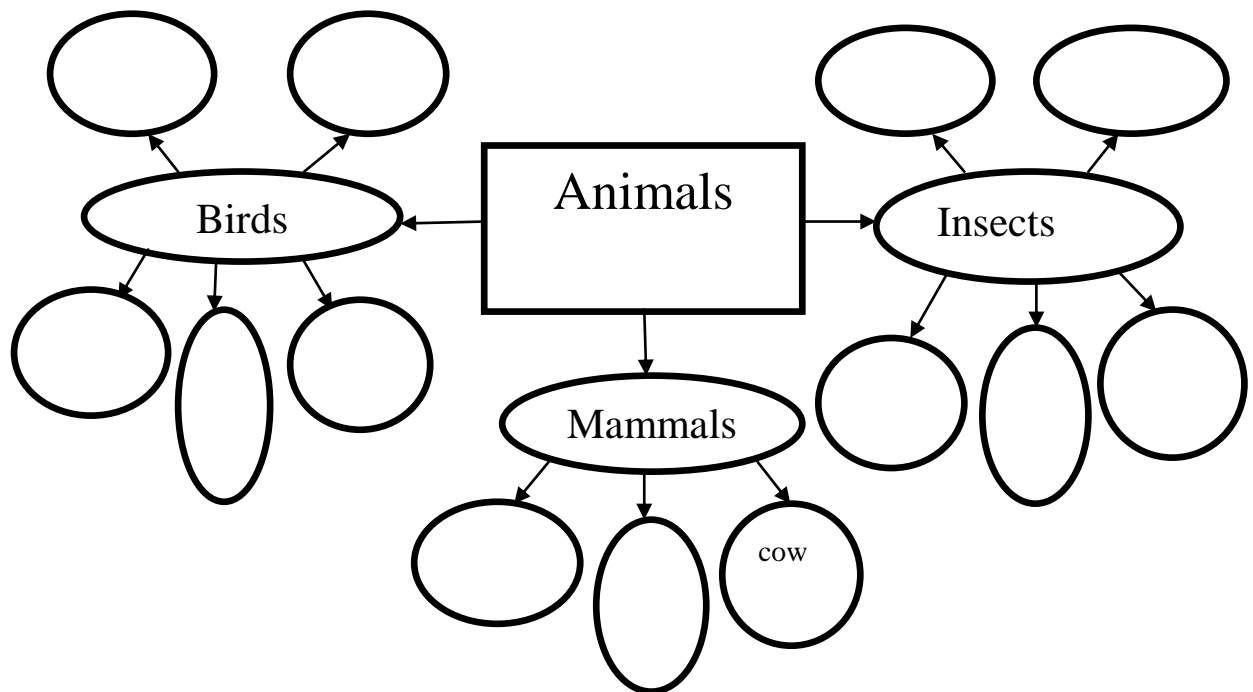
  Time-------------- 50 minutes

Q (1) : Fill in the blank based on the characteristic that related to the topic .

Marks------------------ 15

Q (2) : look at the vocabulary network then complete it

Question (2):-   Marks …………………5

1. Match the words in column(A) with the meanings in column (B).
2. Write down the appropriate answer in column (C).
3. **Time 50 minutes**

No	Column A	Column C	Column B
1	Grapefruit		a large round vegetable with thick orange skin.
2	Mango		a round vegetable with many layers inside other and a brown, red or white.
3	Apple		A small soft round fruit with shiny red or black skin with seeds inside.
4	Orange		a round fruit with shiny red or green skin and firm white flesh.

5	Cherries		A tropical fruit with smooth yellow or red skin, soft orange flesh and large seed inside.
6	Onion		A long pointed orange root vegetable.
7	Potato		A large round yellow citrus fruit with a lot of slightly sour juice.
8	Carrot		A round citrus fruit with thick reddish yellow and a lot of sweet juice.
9	Tomato		A round white vegetable with a brown or red skin
10	Pumpkin		a shiny red skin that is eaten as a vegetable.

Hypothesis Two Semantic Mapping Strategies can be used for learning different parts of speech.(Nouns, verbs, adjectives and suffixes.)

Question (3)A Choose the most correct answer:-   Marks…….5

1.Which one is lived on or near water and has short legs.

a. a hen   b. a duck   c. a turkey   d. an ostrich

2. All of them are insects, except…………………………………….

a. bee   b .butterfly   c. lion   d. mosquito

3. ………………… is a vegetable that used to make delicious salad.

a. pumpkin   b. Aborigine   c .okra   d. pepper

4. Which one gives us honey?   a. bee   b. ant   c.fly   d. frog

5. A lion and a tiger are wild animals, whereas …………………are domestic ones.

   a. an elephant and a fox   b. a donkey and a camel

C.a wolf and a leopard   d. a giraffe and a monkey

Question (3) B Add the following suffixes to the words at the end of each sentences to form words which fit the given paces below:……………..Marks 6

-Iy , - ment , - ous , - ship , -ion

1. Aids is a ……………………………………….. disease. (danger)

2. Think carefully before you take………………….. .   (act)

3. During the interview Sara spoke……………… .   (polite)

4. Students always need help and ………………   .   (encourage)

5. The ……………… Hall was built in 1972.   (friend)

Question (3) C Put the verbs in brackets in their correct forms.

1. My friend (go) ………. Shopping yesterday.
2. If the fisherman catches a lot of fish , he (sell) …………. It in the market.
3. Ahmed (not be) ………… at home now. He must be (help) ……..,….. his father.
4. My brother (visit) …………… Cairo next month. But I (never be) ……………………….. there.
5. While Ali (run) ……………… to school yesterday, a dog (attack) …………… him. He picked up a stone and (throw)…………… it at the dog. But when he got to school, the first lesson (already start) ………………………..

Question (4)   Marks…………….5

Complete the sentences with the suitable words from the given list below.

Size   colored   wide   small   long1

1. The road is 15 meters……………………………………………………

2. One of my shirts is small. And the other is medium…………………...

3. Sara got a lot of presents from her friends, all the gifts were in……….

4. How…………… does it take from Port Sudan to Khartoum by plane?
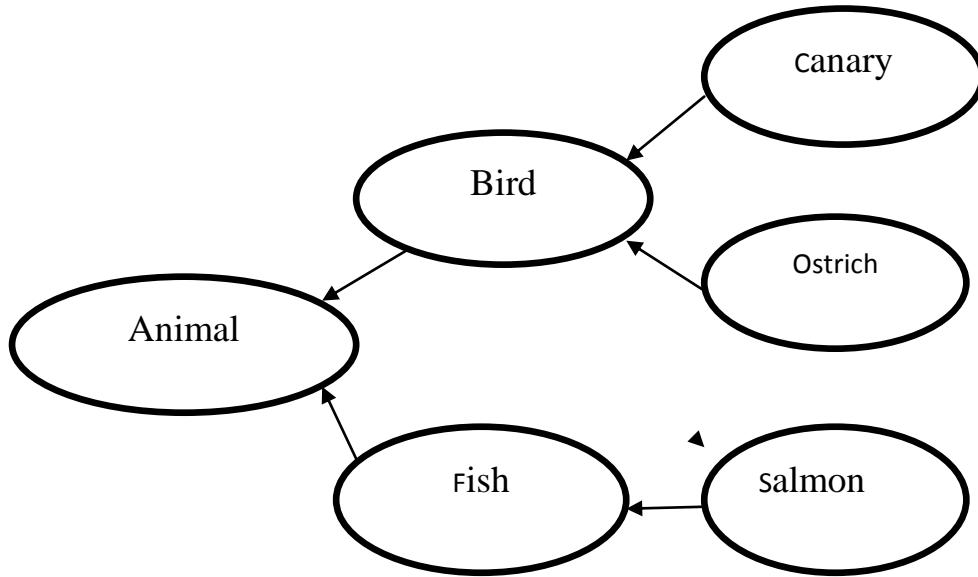
5. Some of her dresses were large but others were ……………………

Appendix(4)

	Table	horse	boy	Man	girl	Women
Animate	-	+	+	+	+	+
Human	-	-	+	+	+	+
Female	-	-	-	-	+	+
adult	-	+	-	+	-	+

An illustration of a procedure for analyzing meaning in terms of semantic feature.
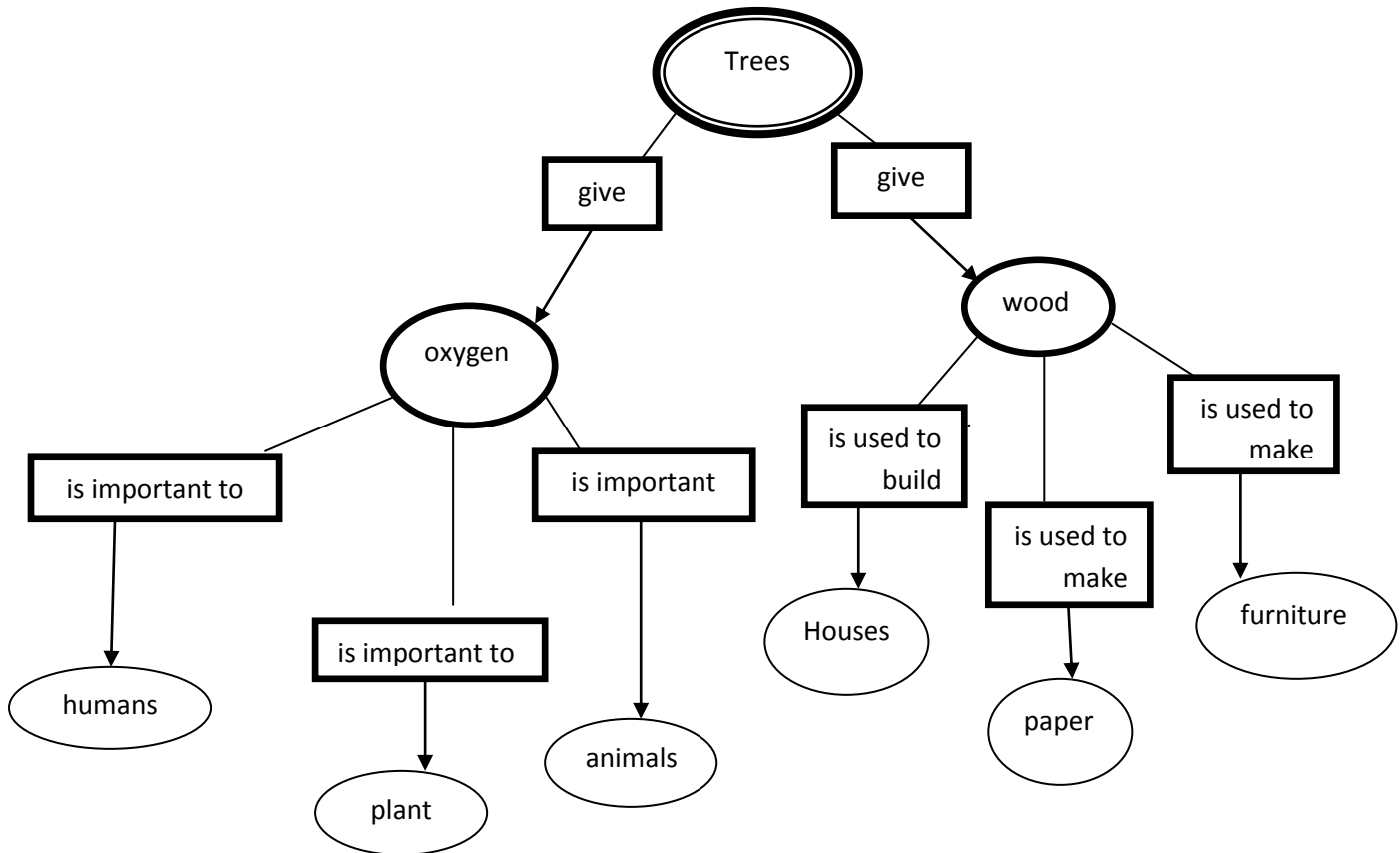
Appendix(5)

Semantic Net word

Appendix (6)

Concept map

Appendix (7)

Instrument Jury Members for Questionnaire

No	Name	Place of work
1	Dr. Hilary Marino Pitia	Sudan University of Science & Technology
2	Dr. Alsadig Osman Mohamed	Sudan University of Science & Technology
3	Prof. Mohamed Al-Amin	National Ribat University
4	Prof. Ahmed Mokhtar Al-Mardy	Omdurman Islamic University