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Strategies of Cognitive Vocabulary Learning

Learning EFL Vocabulary through Brain Based Activities

This Dissertation Is Submitted in Partial Fulfillment of Master Degree in Linguistics

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GENERAL INTRODUCTION

1- Background

The English language has become one of the most spread and widely spoken languages in the world. Therefore, knowledge of English and the ability to use this language properly is rapidly becoming a global commodity.

Owing to the giant role that the English language performs nowadays in international communication, Students should be able to master this language so as to be able to present their thoughts duly, exchange ideas with the others and interact with them easily. In Algeria, English is considered as foreign language that must be taught starting from middle school until the university level. However, the field of English language learning is obstructed by many factors that have a deep effect on Algerian EFL students'; Low English learning proficiency

The key aspect in learning foreign language is vocabulary mastery .It is an element that cannot be separated from language learning as it links the four main language skills, namely: listening, speaking, reading and writing. However, these interrelated skills cannot be mastered if learners lack the main component of language; vocabulary.

One of the main important aspects that support all language skills is vocabulary. Without a set of lexical items a person's language performance will not exceed the ability of labeling things, thus interaction and communication in social context tend to be difficult most of the time.The linguist David Wilkins (1972) argued that: «Without grammar little can be conveyed, without vocabulary nothing can be conveyed ».It summed up the importance of vocabulary mastery which is the key behind the knowledge of language.

Based on the preliminary study, the lack of lexical knowledge is one of the major problems that students encounter during their learning levels which can affect their four main skills and lead to different language problems. Generally, young EFL face different difficulties in mastering vocabulary, memorizing a large amount of words is on the head of the

list. In such cases leading learners to be independent language users depends on the creativity of the teacher who has to lead learners to enrich their own vocabulary by providing new strategies of teaching and new methods to instruct these strategies .

Research found that Young EFL learners had difficulty in mastering English, because their vocabulary is not enough to help them interact and even describe their needs during the session. This is because the teaching syllabus is designed to build a strong grammar layout and does not give enough time to vocabulary. thus late at their learning levels learners' find it impossible to use the language when conversing in this language is needed.

Regarding this problem, a special focus to the different learning strategies is recommended to help learners use more skills to enrich their lexical pool. Due to the importance of the brain based strategies for improving learners' performance in different language activities. Vocabulary learning strategies was implemented to the field of vocabulary learning and teaching to enhance learners' performance in this most important aspect of language.

1.1 Statement of the problem

A mass of words is required to name things ,verbalize actions and express thoughts .However ,possessing agood vocabulary repertoire is not an easy task .Learning vocabulary is the essential part of learning a language .As soon as , is the hardest factors that EFL learners always complain about ,because they don't know what strategy is workable for them .They try to memorize it that ends in being unable to recall it .When students learn the word they must know both ,the meaning of the word and how to use it in the appropriate context .For that , a special focus on the cognitive strategies unable them to better enhance vocabulary .

1.2 Aim of the study

This study aims at giving new perspectives to vocabulary learning ,that help students to enrich their vocabulary repertoire using cognitive strategies and their effectiveness in in L2 vocabulary learning for young students .

1.3 Research Questions and Hypothesis

This study is guided by the following questions :

General Question

- What are the main cognitive strategies used to better vocabulary enhancement?

Sub-questions

- To what extent can memory findings contribute to vocabulary growth?
- Can the cognitive vocabulary learning strategies be effective in the process of learning a L2?

To answer these questions , the following hypothesis are suggested :

- If the cognitive vocabulary strategies are applied, learners would

manifest considerable improvement in expanding their vocabulary store for along-term retention of vocabulary items.

- Learners who make use of their cognitive abilities maintain better vocabulary attainments.

1.4 The Structure of the Research .

This research consists of three chapters organized as follows:

- The first chapter highlights the issue of vocabulary learning and the different cognitive learning strategies used .In addition to a brief discussion about the relationship between SLA and the cognitive vocabulary strategies .
- Chapter two presents a detailed description of the methodological process and collection instruments; questionnaires for students and observation.
- Chapter three deals with analysis of data collection

Significance of the study

It is hoped that the findings of this study may contribute to:

- Developing students' ability and achievement of L2.
- Directing Teachers attention toward vocabulary teaching.
- Providing easy and effective cognitive strategies for better lexical attainment.
- Leading learners to be independent users of learning strategies

Chapter one:
Literature review

Chapter One

Literature Review

I. Introduction

Teaching L2 to young learners maybe a difficult endeavor. Since the process of learning rely on the activation of previous knowledge and building new layout to learners. In the field of education, teaching languages is still dominated by the view that knowledge is a set of facts that have to be memorized. Many students can serve a good level of memorization of teaching materials, but in the end of the learning process they do not understand it all and forget most of the basic principles of language. Although teaching languages in different educational levels rely on grammar as being the core of language , learners majoring in English are supposed to have a large vocabulary alone with grammar

Vocabulary is the core of language teaching and learning. It is the expressive tool that helps conveying different messages. EFl may convey a message without having a correct grammar layout; however, they cannot express their ideas without having a lexical competence. The lack of vocabulary can limit the comprehension and the development of any human activity. Thus the question of teaching L2 vocabulary has drawn the attention of many educationalists.

Due to the importance of brain based teaching strategies studies have analyzed this vital educational field and sheded light on learner as being the focal part of the learning process . Being aware of the different teaching and learning strategies and the process of learning vocabulary through the different areas of the brain involved in the learning process and giving importance to the skills of designing a task plays a major role on the success of vocabulary attainment

1.Vocabulary and language

Vocabulary represents one of the most important aspects of teaching and learning a foreign language. It is the platform through which language skills are developed and, it is the main tool for learners to use L2 effectively, since the ability to read, write, listen and speak rely heavily on it.

1.1. the importance of vocabulary

Most of the time, foreign language learner realize that lexical knowledge is not enough whenever they try to converse in the target language. This happens late in their learning level because most of the time teachers focus on building grammatical knowledge more than lexical knowledge. for this reason, a special focus on vocabulary should be given to make learners ready to use the language in different contexts and to converse fluently. The linguist David Wilkins argued that : « Without grammar little can be conveyed, without vocabulary nothing can be conveyed ». Indeed, without a set of lexical items communication is abruptly interrupted. Schmidt emphasized that lexical knowledge is central to communicative competence and to the acquisition of second language (Alquahtani). Without vocabulary knowledge speaker cannot express his / her ideas and thoughts and cannot describe his / her own need. The relationship between vocabulary knowledge and language use is complementary: knowledge of vocabulary enables language use and, conversely, language use leads to an increase vocabulary (Nation) .

The importance of vocabulary is viewed in and out school. Students with massive vocabulary achieve better than those with few vocabulary items. Researchers such as Nation, Maximo, Gu have realised that the acquisition of vocabulary is essential for successful L2 use and it plays an important role in the formation of complete spoken and written text (Alqahtani). In L2 lexical items enhance the development of language skills. L2 learners rely on lexical knowledge to maintain better understanding of written and spoken materials. The lack of the latter is a large obstacle for learners, since it demands a mass of words for a person to express oneself, label entities and verbalize actions and thoughts. Thus,

the four main language skills, reading, writing, listening and speaking cannot be fully accomplished without good vocabulary repertoire.

1.1.2. The Importance of Teaching Vocabulary

Vocabulary knowledge is a crucial aspect in foreign language learning and teaching. Without lexical items it is impossible to have smooth communication or achieve successful comprehension of written and spoken materials. Teaching vocabulary to second language learners has been neglected for many decades. However, the latter has become a crucial topic for researchers. Nation, Marrion, Saussan are among others who shed light on lexical knowledge as being an essential tool for a successful language use. It is a common belief that grammar is the basise of any language for this reason the methods of instructions and learning programs were designed to improve the learner's grammatical competence in the first place. However, Wilkins states that: ''There is not much value in being able to produce grammatical sentences if one has not got the vocabulary that is needed to convey what one wishes to say. (Alquahtani). Most of the time, foreign language learners realize that their lexical knowledge is not enough whenever they try to converse in the target language, this happens late in their learning stage. Recent research indicates that teaching vocabulary may be problematic because many teachers are not confident about the best practice in vocabulary teaching and at times do not know where to begin to form an instructional emphasis on word learning (Bejoint) . Teaching vocabulary at a different level of language learning enables learners to use language effectively and fluently. It allows learners to interact in social community and benefit from their language skills (Reading, writing, listing and speaking). Additionally, giving value to lexical knowledge at an early age of learning produces independent language users who are able to communicate smoothly and cross all language obstacles that may face them. Vocabulary is an essential tool of language mastery, it is considered sometimes as a huge obstacle to L2 learners. The way of teaching vocabulary used by many teachers is the main reason behind the lack of students' vocabulary repertoire. And the way learners used to

memorize lexical items makes it difficult sometimes to retrieve it when it is needed.

2.Vocabulary and Memory Bank

The lack of vocabulary is tend to be one of the major problem that L2 learners face in classroom. Most young learners encounter difficulties during their process of learning new vocabulary. Many of them resort to memorization as a solution to this problem, the thing that makes it even harder for them to retrieve this recently learned vocabulary. Instead of just stockpiling new items , learners need to be aware of the different learning strategies to enrich their lexical pool and make use of their mental abilities to benefit from an ultimate attainment of L2 vocabulary .

2.1. The Brain Memory and Learning

The brain is a three pound organ which is on the heart of the nervous system.It controls all the functions of the body interprets and processes information from the outside world and embodies the essence of heart and mind . Emotion , creativity , intelligence and memory are few of many functions governed by the brain . Protected within a skull the human brain is hugely interconnected but three major components can be identified: the cerebellum , the cerebrum and the spinal cord The cerebrum is the largest part of the brain the part which performs higher functions like interpreting touch, vision and hearing, as well as speech, reasoning, emotions, learning, and fine control of movement it is composed of two hemispheres ,the right and the left joined together by the corpus callusum. Each hemisphere controls specific functions.

The brain hemispheres have distinct fissures which divides the brain into four lobes .Frontal , the region responsible for body movements , personality behavior , emotions. As well as , intelligence , concentration and awareness . Some areas of the brain have long been related to language ability. Broca's area for instance a portion of the left inferior frontal gyurs is associated with learning one's native language (Anderson). It is a part responsible for speech production. It processes and produce speaking and writing activities . The parietal lobe is located right next to the frontal . It is a region with sensory scripts , it interprets sense of touch , pain , temperature in addition to interpreting signals form vision, hearing , and most importantly it interprets language and words

meaning . The occipital lobe is the part of the brain which decodes vision; and the temporal is the region responsible for sequencing and organization it detects hearing this region is where the memory is located .

2.2. Theories of Memory

memory is the heart of everything . It is the faculty of the brain where information are stored and processed . It is responsible for the retention of information over time , remembering events , learning and developing language and personal identity . Often memory is understood as a three stage process involving: Encoding information, storage and retrieval. Encoding is the crucial first step to creating new information. It allows the received item of interest to be converted into a contrast that can be stored within the brain and recalled later when needed. Storage is the process of placing and retaining the acquired information in the brain , whether in sensory memory , short-term memory or long-term memory . Finally, retrieval of information, this refers to calling back information when needed (Keane). Each of this different stages of human memory functions as a filter that protects a person from the flood of information . These various processes occur within the overall structure of architecture of the memory system.

The stages of information processing is commonly used as an architecture of information processing with three main phases : short-term memory or the working memory , long-term memory and sensory memory (Huitt)

2.2.1. Sensory Memory

Sensory memory is the first stage of memory that involves registering a tremendous input of information about the environment for a brief period . The sensory memory is directly related and influenced by attention . Which is not associated with understanding the development of information processing Nietfeld attested that the sensory register is a memory constituent that encompasses a large capacity to embrace the information received (input) but a very short life of just a few seconds. The information is received through your senses i.e. anything you hear, see, or smell etc. Any received information in the sensory register will fade away if it is not attended. This is what makes the weight of attention, since it picks the information which becomes accessible to memory.

Suthers (2016) stated that it is vital that the information is attended at this early phase in order to be transferred to the next one.

2.2.2. Short-Term Memory or The Working Memory

It is known that short-term memory is the memory where information is stored , and process for a limited period before it vanishes . Short-term memory according to Neitfeld it is the component of the memory where attended-to store information stays for a short while so that a better sense of it can be made by a person . It is where much of human thinking and cognitive process occurs . It is where a person solves problems , understand lectures and the content of a text . Many researchers agreed on the capacity of STM among them Miller who hypothesized that the capacity of STM in information processing is very limited , around seven items plus or minus two . Information in short-term memory are stored in forms of items , words , letters , or numbers and in chunked form . Chunks are a number of items grouped together to facilitate the input and the process of information storage .Obviously , a string of words has a greater information process then a string of letters . In other words , remembering the order of words is easier than then isolated latter especially if it is chunked together into word unites .

Baddeley-Hitch model is an influential model of short-term memory . This model of the STM consist of a central executive with two support systems .The phonological lope for short term encoding and storage for verbal information and visio-spatial sketchpad, for short term encoding of information. (Keane) Recently another component was added to STM model which provides temporary storage of information held on multi model code , known as the episodic buffer , which shares some characteristics with the concept of episodic memory (Keane) .

2.2.3. Long-Term Memory

Long-term memory is the final stage of the multi-store memory model suggested by Atkison-shiffering .Theoretically, in contrast to short term memory, long-term memory has infinite capacity of information storage . Any information stored in long-term memory usually stay there for person’s life. However, this does not allow easy information retrieval. Researchers divided memory into explicit (conscious) and implicit (unconscious). Explicit memory depends on the structure of the temporal

lobe , it requires conscious to store information it is the memory facts and events . Explicit memory is often associative, simply because the brain link memories together . For example , when you think of a word or association , the brain brings all host of associative memories , such as an apple , you brain brings all related memories for example family trip explicit memory is characterized as being rapid and available to conscious recall . According to May and Einstein (2013), declarative memory is a deliberately controlled memory system with pliancy. Although it decreased with age , different learning strategies , such as mnemonic strategies can be the Best way utilized to revoke knowledge . The explicit memory is further divided into two major types . The semantic memory , which is responsible for storing information about the world , which include general knowledge . Episodic memory is another component of the long-term memory ,it includes knowledge about the meaning of the words . Implicit memory is another type of longe-term memory . It is acquired and used unconsciously , and can affect thoughts and behaviors. (Schacter) This kind of memory is both unconscious and unintentional. Implicit memory is also sometimes referred to as non declarative memory since you are not able to consciously bring it into awareness. One of the most important forms of this memory is procedural memory , which enables a person to perform tasks without being aware of previous experiences . For examples using a specific word or idiom without being aware when and when did he/she learn it .

Information that a person have to consciously work to remember is know as explicit memory , while information that does not require a conscious and efforts is known as implicit memory .

Sensory memory and short-term memory work together to help the brain store information for a long time for a later recall

3. Learning and Instruction Strategies

Leading learners to be independent language users is a task that cannot be achieved without learners' awareness of the input strategies involved in their learning process . Learners' effort to enhance and assist their language learning to experience is known as learning strategies .There are five main learning strategies , cognitive and meta-cognitive strategies are to be discussed.

It is often difficult to distinguish between cognition and metacognition , since the two term are closely related and can often overlap.

Cognition is often defined as the mental process by which external or internal input is transformed, reduced , elaborated , stored , recovered and used . As such , a verity of functions are involved , such as : attention , perception , memory coding , retention , recall and executing actions (D'ydewalle) . In another word ,cognition is referred to as the mental process that include memory , knowledge producing and understanding language , learning and reasoning .

Metacognition is a type of cognition . A subdivision of cognition . Metacognition is defined as the scientific study of individual's cognition about his/her own cognition . It is the awareness of one's own knowledge and his /her own ability to understand and control the cognitive process .

3.1. Metacognitive Knowledge and Skills

Metacognition is characterized by Pintrich as a subordinate ability to direct and regulate cognitive , motivational and problem solving process in order to achieve a specific goal (Scanlon) .Metacognitive knowledge refers to the learners' knowledge about the learning strategies , how to use this knowledge and why . While metacognitive skills refers to the application of this knowledge Scanlon claimed that « Metacognitive knowledge refers to what individuals know about themselves as cognitive processors , about different approaches that can be used for learning and problem solving and about the demands of a particular learning task ». Metacognitive skills refers to learners' different abilities , such as planning , problem solving , self-monitoring and self-evaluation that would present the authentic procedures and strategies used to during task performance and monitoring (Scanlon)

The difference between this two main component is that even when learners are known the different learning strategies, they do not necessary are able to use them . In this sense , it has been argued that metacognitive knowledge precede,metacognitive skills

3.2. Cognitive Strategy Instruction :

Providing learners with a sample word learning strategies is one of the main ways that guarantee successful vocabulary learning. Direct strategy

teaching discusses the significance and aim of the strategies to be taught in a hasty manner. Since the teacher has to boost ‘word consciousness’ and instruct effective strategies for learning vocabulary rather than teaching merely words (Feldman and Kensella, 2005) . According to Reid et al., learners who are exposed to different cognitive strategy instructions are aware of their own metacognitive knowledge of strategies . Thus, they develop specific skills of selecting the appropriate learning strategy at the appropriate time .

Cognitive strategy instruction is « teaching students about strategies, teaching them how and when to use strategies and , helping students identify personally effective strategies and encouraging them to make strategic behavior part of their learning schema » (Daliziel et al).

According to Reid et al. , Cognitive strategy instructions follow five stages in it process . A learner who does not master multiplication cannot be taught a long-division strategy . In another word , learning pre-skills is needed before starting any.

First , Students to be able to use a specific strategy , they need to build up background knowledge and skills . In another word , students need to master the pre-skills before they move to the other learning stages.

Second , teachers need to take into account their students’ active and cognitive traits. ie. If a teacher notice that a learner is not comfortable with a specific learning strategy , he should adjust it is understood (Reid et al.) . It is important at this stage to clarify the strategy for learners , its aimes and function and the way it can be used .

Third, increases students’ knowledge of the strategy steps. It is considered s imperative since it improves learners metacognitive knowledge of the strategy through the exposure to the way skilled learners implement and regulate its use (Reid et al) In this stage student understand the process of the strategy and how to use it through providing explanation of the process of the strategy.

Modeling the strategy is the fourth stage . The main role of modeling appears when performing . This process is called think out loud, it enables a person to memorize the strategy through group work . For example , “a teacher says the first step of the strategy and then tosses a

ball to a student, who states the second step; This student then, tosses the ball to another student, who relates the next step" (Reid et al.) . Memorizing the strategy with the teacher's help enables learners to have enough time for practice , and benefit from the feedback of the teacher .

The last stage of cognitive instruction strategies gives confidence for learner to carry on using the strategy and applying it into new situation . (Daliel et al). The major responsibility of teacher at this stage is to evaluate and access the learners performance and notice.

Following these stages enables students to use the strategies automatically i.e. learners will not be obliged to 'think' before using the strategy, it will be mechanic (Dalziel et al.) Teachers need to be cautious in the choice of strategies . Cognitive strategy instruction is an adaptable approach, effective for all the types of learners , it can be used to instruct individuals , small groups , and even wide-ranging classroom.

According to Krawek and Montague Cognitive strategy instruction need to follow specific layout. Teacher need to :

A- Develop the background knowledge of learners

b- Explain the strategy

c- Modeling the strategy

d- Memorizing the strategy

e- Assess and support learners to use it .

f- Leading learners towards independent use of the strategy .

4. The Multisensory Instructions in learning Vocabulary

4.1 On the Role of Senses in Education

Everything we know we learned by using our senses .Each sense ,either singularly or in various combinations, provides a pathway to learning .While each sense is important in itself ,our senses are designed to function in harmony .Kinesthesia is defined as "the feedback mechanism of the nervous system which conveys information between the mind and

the body ,"and what coordinates "our senses of hearing ,sight ,and touch ;our faculties of knowing and reasoning ;our ability to feel and to act on our feelings "(Dalcrose Society of America (DSA)).Recent discoveries in neuroscience and cognitive psychology have found that human brain is organized to process information , that come from different sensory channels, cooperatively. Modern neuroimaging technique(MEG, FMRI,PRT, etc) have now identified numerous multisensory convergence zones in the brain ,and researchers are talking about multisensory learning neurons (S.M.Thompson).

Additionally, technologies of neuroimagine proved that activities that are based on numbers and logic are associated with the left side of the brain .While ,activities involving music ,imagination ,colors ,or creative expressions are associated with the right hemisphere. Researchers claim that the involvement of both hemispheres of the brain in the classroom could improve the process of teaching and learning .

Researchers emphasize that senses do not reach only our feelings,emotions, and aesthetic sense, but our intellect as well.(staley).
Memorization, is one of the vital element of the learning process and retention is the way that leads to the utilization of knowledge . "Tantumscimusquantumemoriatenemus" estimates that people retain 10% of what it read ,20% of what is heard and and 30% of what is seen .However ,a striking improvement takes place in retention , if the above senses are combined. For example , the learner hears and sees the subject at the same time , the retention can be pushed to 50%. If questions that stimulate thinking are used as a background for the eyesight and sound,the retention level can be pushed close to 70%.The recall possibility will be higher by the learners when senses are used to explore new materials .This can be explained by the fact that there will be more pathways of locating the stored information .Furthermore , there are learners who prefer auditory learning styles ,others favor visual and others can better understand in receiving information through kinesthetic senses .Consequently, a
multiple senses approach of education will provide equality of chances for each student.

According to Mayer and Sims (1994), The Dual-Coding Theory says that learning is more effective when learners use more than one sensory modality, for instance, verbal and visual processing together, and when

connections are clearly made between information contained in each modality(S.M.Thompson).

The path from sensation to memory is a complicated process. The senses are bombarded by stimuli that must be encoded into meaningful patterns (in the working memory) and then sorted in the long-term memory. (J.Mead).
Two different subsystems are handling sensations, according to the dual coding theory. The verbal input is handled by subsystem specialized in language , while non –verbal input by a subsystem specialized in images or sensations . these images can be visual , auditory , or kinesthetic .During the process of transferring the data from sensation to long –term memory ,the two subsystems will be involved. Researches believed that memories of images are more easily recalled, while verbal
memories are more easily applied, synthesized, and transferred.
The multisensory instructions plays an important role in the language learning process, it enable learners' personal fulfillment and triggering their motivation and understanding .The multisensory stimuli consist of auditory ,visual , tactile, kinesthetic and gestation elements.

The idea that learning experienced through all the senses is helpful in reinforcing memory has a long history in pedagogy. From the earliest teaching guides (Montessori).

Educators have embraced a range of multi-sensory techniques in order to make learning richer and more motivating for learners. The term is used to refer to any learning activity that combines two or more sensory strategies to take in or express information. Multi-sensory approaches have been particularly valuable in literacy and language learning, for example, in relationships between sound and symbol, word recognition, and the use of tactile methods such as tracing on rough or soft surfaces (Jubran).
Multi-sensory learning techniques have also proven to be helpful in the development of a foreign language. Drills that contain visual, auditory, and even tactile involvement by students improve their comprehension of the foreign language (Kalivoda).

5. The Multisensory Integration Approach

Every teacher expects optimum level of process .Most of the students have retrieval difficulties on the past learning .Memory difficulties directly related to sensory integration .In these circumstances the investigator made an attempt to construct Multisensory integration

Approach Model based on sensory process and perceptual process .Multisensory integration approach model contains three parts the first is instructional part ,second part is processing part is processing part and third one is learning outcome part .Instructional part is includes seven steps .There are relating new information , developing sensory connection ,Organizing the information ,expending sensory images ,structuring the information processing and practicing recall .The above instructional strategies develop stimulation ,sensation, attention ,perception, imagery , conceptualization and memory .The learning outcome part contains from low level sensory integration (Visual-Auditory)to high level sensory integration (Visual –Auditory –Tactile).

The investigator regulates information processing of the students in the brain through Multisensory Integration Approach Model .

Development of models of teaching is the recent innovation in teaching .An important purpose of discussing models of teaching is to have a wide range of approaches for creating a proper interactive environment for creating a proper interactive environment for learning .An intelligent use of these approaches enables the teacher to adopt him to the learning needs of the students.(Prasannakumar .S).

5.1. The Multisensory Integration in The Modern Classroom

Most formal instructional exercises takes place in an organized area known as a classroom. The classroom is a room specially set aside in school or college where teaching and learning is carried out.. Conventionally, the classroom supposed to be equipped with necessary materials which could enhance teaching and learning. In other words, it is that classroom that houses this multimedia for teaching-learning process (S.N. Aja).

In the modern day classroom teaching and learning , technology has become the order of the day .

In the educational sector ,education ,educational technology is the efficient use of technological tools in instructional process with the aim of improving teaching and learning .they try to make the whole teaching and learning process more meaningful and easy for both the teacher and the learner ,by modifiying teacher's instructional

.approach .They also shape the general school environment towards achieving the effective teaching and learning .(S.N.Aja).

Tools in this context encompass media of various types including machines, and networking hardware is used to accomplish some educational goals and specific instructional objectives as specified in the curricular program. They try to make the whole teaching and learning

process more meaningful and easy for both the teacher and learner by modifying teacher's instructional approaches to learning objectives and learners' behavioral outcomes. They also shape the general school environment towards achieving effective teaching and learning. The functions as mentioned above of technological tools' contributions to education may not be possible when only one media (tool) is applied from the beginning to the end of the instructional presentation. Meaning that combination of different media and techniques in teaching and learning is more advantageous and useful to get the best possible outcome in a classroom situation. The application of a variety of teaching media, methods, and technique in instructional exercise is known as multi-sensory instruction.

Multi-sensory here referred to many senses. Multi-sensory could also be referred to as multi-media in classroom communication encounter. It is assumed that reasons are the gateway of knowledge which we are all endowed with to learn and assimilate new pieces of information in so many surprising ways through these thoughts. It is natural that individuals have five physical senses: sight, hearing, touch, smell and taste which are not functioning (working) at the same rate. Some people's minds are more active than others, and this affects the rate of understanding and perception. As a result, use of different types of media which takes care of students' unique way of understanding in teaching-learning process is preferable.

According to Wittich and Schuller ,multi-media facilitate the process of teaching and learning more than one single type of media .put in another form , doors of learning of any information ,knowledge or subject are always broad and accessible as long as one uses effective multi- sensory learning strategies.Furthemore , the study conducted by cohune (1968) which cited in Aggarwal (2007)noted that :

1 percent of what is learned is from the sense of taste.
1.5 percent of what is learned is from the sense of touch.
3.5 percent of what is learned is from the sense of smell.
11 percent of what is learned is from the sense of hearing.
83 percent of what is learned is from the sense of sight.
Retention of what is learned is likewise related to sensory experience.

6. Learning Strategies

One of the most important principles of effective learning is that we will remember material far better if we concentrate on its meaning, rather than just trying to learn it by heart. Mere repetition or mindless chanting is not

very efficient. To create an effective memory trace we need to extract as much meaning from it as we can, by connecting it with our store of previous knowledge. In fact this principle has been used for centuries in the memory enhancement strategies known as mnemonics,
which mostly involve techniques to increase the meaningfulness of the material to be learnt.(Eysenck)

A number of theories have been proposed to explain the superiority of semantic processing, most notably the 'levels of processing' theory (Craik and Lockhart, 1972). The levels of processing theory states that the more deeply we process an item at the input stage the better it will be remembered, and semantic processing is seen as being the deepest of the various types of processing to which new input is subjected. Later
versions of this theory (Lockhart and Craik, 1990; Craik, 2002) suggest that semantic processing is more effective because it involves more 'elaboration' of the memory trace, which means that a large number of associative connections are made between the new trace and other already stored in the memory.
The result of such elaborative encoding is that the new trace becomes embedded in a rich network of interconnected memory traces,each one of which has the potential to activate all of those connected to it. Elaborative encoding thus creates a trace that can be more easily retrieved in the future because there are more potential retrieval routes
leading back to it.One way of elaborating memory traces and increasing their connections with other traces is to organise them into groups or categories of similar items (Eysenck).
MacLeod (2010) has shown that learning can be improved by merely speaking test items out loud, which he suggests may help to increase their distinctiveness

6.1. Visual Imagery

Visual imagery is another strategy known to assist memory. Paivio (1965) found that participants were far better at retrieving concrete words such as 'piano' (i.e. names of objects for which a visual image could be readily formed) than they were at retrieving abstract words such as 'hope' (i.e. concepts that could not be directly imaged). Paivio found that concrete words retained their advantage over abstract words even when
the words were carefully controlled for their meaningfulness, so the difference could be clearly attributed to the effect of imagery. Paivio (1971) explained his findings by proposing the dual coding hypothesis, which suggests that concrete words have the

advantage of being encoded twice, once as a verbal code and then again as a visual image. Abstract words, on the other hand, are encoded only once, since they can only
be stored in verbal form. Dual coding may offer an advantage over single coding because it can make use of two different loops in the working memory (e.g. visuo spatial and phonological loops), thus increasing the total information storage and processing capacity for use in the encoding process.It is generally found that under most conditions people remember pictures better than they remember words (Haber and Myers, 1982; Paivio, 1991). This may suggest that pictures offer more scope for dual coding than do words, though pictures may also be more memorable because they tend to contain more information than words (e.g. a picture of a dog contains more information than the three letters'DOG').
A recent study by Schmeck*et al.* (2014) demonstrated that the recall of a written passage can be improved by drawing some aspect of the content, which clearly adds a visual image to the verbal material. De Bene and Moe (2003) confirmed the value of imagery in assisting memory, but they found that visual imagery is more effective when applied to orally presented items rather than visually presented items. A possible explanation of this finding is that visual imagery and visually presented
items will be in competition for the same storage resources (i.e. the visuospatial loop of the working memory), whereas visual imagery and orally presented items will be held in different loops of the working memory (the visuospatial loop and the phonological loop, respectively) and will thus not be competing for storage space.

6.2. Mind Mapping

Another useful revision strategy is to draw a diagram that organises your notes in a way that groups together items that have something in common. These strategies can help students toorganise facts or ideas in a way that will strengthen the associative connections between them, and it can also help to add an element of visual imagery too.
One particularly effective form of mind map is known as a 'concept map', because it is organised as a hierarchy of concepts, with major concepts at the top and subsidiary concepts below. The use of mind maps has been shown to have benefits for students
in real-life settings. Lahtinen*et al.* (1997) reported that medical students who made use of memory improvement strategies during their revision were more successful in their exams than those who did not, and the most effective strategies were found to be the use of mind maps and using organised summaries of lecture notes. McDougal and Gruneberg (2002) found that students preparing for a psychology exam were more

successful if their revision included the use of mind maps and name lists. Memory strategies involving first-letter cues or concepts were less effective but still had some benefit, but those students who did not use a memory strategy of any kind performed worst of all. In a more recent study, Veronese *et al.* (2013) reported that medical students who made use of mind maps in their revision gained better marks than other students. (Eysenck)

7. Techniques of learning Vocabulary

there are several techniques concerning learning vocabulary. However, there are a few things that have to be remembered by most English learners if they want to learn / remember a new vocabulary or lexical items .

followings are some techniques of teaching vocabulary as proposed by some experts.

7.1.Mnemonics.

Some researchers have acknowledged that mnemonics are strategies that capitalize on naturally occurring memory processes. Worthen and Hunt (2011), for example, suggested that mnemonics work because they increase organization; encourage distinctive, elaborative encoding; and take advantage of the power of visual imagery (see also Bellezza, 1981). One study (Maguire, Valentine, Wilding, &Kapur, 2003) demonstrated that expert memorizers, who have extensive training with specific mnemonic techniques, are more likely to use brain areas associated with spatial special training. Despite never taking center stage as an area of inquiry within psychology, there has been a steady flow of experiments exploring mnemonics and how they work . (Davachi).

7.1.1.Mnemonic Strategies

Mnemonic strategies are a collection of techniques that add meaning, organisation and imagery to material and have been used to improve memory development .

It is relatively easy to learn material that is intrinsically meaningful, but we are sometimes required to learn items that contain virtually no meaning of their own, such as a string of digits making up a telephone number. This normally requires rote learning (also referred to as ‘learning

by heart' or 'learning parrot-fashion'), and the human brain does not seem to be very good at it. People have known for centuries that memory for meaningless items can be greatly improved by strategies that involve somehow adding meaning artificially to an item that otherwise has little intrinsic
meaningful content of its own, and it can be even more helpful when it adds a strong visual image to the item. Various techniques have been devised for this purpose, and they are known as mnemonics. (Eysenck).

7.1.1.1.First Letter mnemonics

You probably used first-letter mnemonics when you were at school, foexample when you were learning the sequential order of the colours of the spectrum. The colours of the spectrum (which are: red, orange, yellow, green, blue, indigo, violet) are usually learnt by using a mnemonic sentence that provides a reminder of the first letter of each colour, such as 'Richard of York Gave Battle In Vain' or alternatively that colourful character 'RoyGBiv'. It is important to note that in this example it is not
the actual colour names that are meaningless, but their sequential order. The mnemonic is therefore used primarily for remembering the sequential order of the colours. Other popular first-letter mnemonics include notes of the musical scale (e.g. 'Every Good Boy Deserves Favours'), the cranial nerves (e.g. 'On Old Olympus Towering Top A Fin And German Viewed A Hop') and the 'big five' factors of personality (e.g. 'OCEAN'). All of these mnemonics work by creating a sequence that is meaningful and incorporates potential retrieval cues (Eysenck)

7.1.1.2.Chunking

A good general strategy for learning long lists of digits is the method of chunking (Wickelgren, 1964), in which groups of digits are linked together by some meaningful connection. This technique not only adds meaning to the list, but also reduces the number of items to be remembered, because several digits have been combined to form a single memorable chunk. For example, try reading the following list of digits just once, then cover it up and see if you can write them down correctly from memory: 1984747365

It is unlikely that students will have recalled all of the digits correctly, as there were ten of them and for most people the maximum digit span is about seven items. However, if you try to organize the list of digits into

some meaningful sequence, you will find that remembering it becomes far easier. For example, the sequence of digits above happens to contain three sub-sequences which are familiar to most people. Try reading the list of digits once again, but this time trying to relate each group of digits to the author George Orwell, a jumbo jet and the number of days in a year. You should now find it easy to remember the list of digits, because it has been transformed into three meaningful chunks of information.
What you have actually done is to add meaning to the digits by making (Eysenck)

7.1.1.3.The Method of Loci

The method of loci involves a general strategy for associating an item we wish to remember with a location that can be incorporated into a visual image. For example, if you are trying to memorize the items on a shopping list, you might try visualizing your living room with a tomato on a chair, a block of cheese on the radiator and a bunch of grapes hanging from the ceiling. You can further enhance the mnemonic by using your imagination to find some way of linking each item with its location, such as imagining someone sitting on the chair and squashing the tomato, or the cheese melting when the radiator gets hot. When you need to retrieve the items on your list, you do so by taking an imaginary walk around your living room and observing all of the imaginary squashed tomatoes and cascades of melting cheese. It is said that the method of loci was first devised by the Greek poet Simonides in about 500 BC, when he achieved fame by remembering the exact seating positions of all of the guests at a feast after the building had collapsed and crushed everyone inside. Simonides was apparently able to identify each of the bodies even though they had been crushed beyond recognition, though cynics among you may wonder how they checked his accuracy. Presumably they just took his word for it. Massen*et al.* (2009) found that the method of loci works best when based on an imaginary journey which is very familiar to the individual and thus easily reconstructed. For example, the journey to work, which you do every day, provides a better framework than a walk around your house or your neighbourhood. (Eysenck)

7.1.1.4. The Keyword System

A variant of the face-name system has been used to help people to learn new languages. It is known as the keyword system (Atkinson, 1975; Gruneberg, 1987), and it involves thinking of an English word which in some way resembles a foreign word that is to be learnt. The keyword

method has proved to be a very effective way to learn a foreign language. Raugh and Atkinson (1975) reported that students
making use of the keyword method to learn a list of Spanish words scored 88 per cent on a vocabulary test, compared with just 28 per cent for a group using more traditional study methods. Gruneberg and Jacobs (1991) studied a group of executives learning Spanish grammar, and found that by using the keyword method they were able to learn no fewer than 400 Spanish words, plus some basic grammar, in only 12 hours of teaching. This was far superior to traditional teaching methods, and as
a bonus it was found that the executives also found the keyword method (Eysenck)
more enjoyable. Thomas and Wang (1996) also reported very good results for the keyword method of language learning, noting that it was particularly effective when followed by an immediate test to strengthen learning. (Eysenck).

7.1.1.5. The peg- Word System

Another popular mnemonic system is the peg-word system (Higbee,1977, 2001), which is used for memorising meaningless lists of digits.In this system each digit is represented by the name of an object that rhymes with it. For example, in one popular system you learn that 'ONEis a bun, TWO is a shoe, THREE is a tree', and so on
Having once learnt these associations, any sequence of numbers can be woven into a story involving shoes, trees, buns etc. Like many mnemonic techniques, the peg-word system has a narrow range of usefulness. It can help with memorising a
list of digits, but it cannot be used for anything else. (Eysenck)

II- The Theoretical Framework

Based on the Cognitive theories, knowledge is not an object that can be transferred by a teacher to a student. It is reconstructed by the students by selecting the information, creating hypotheses, investigating evidences and relating new experiences to the old and existing ones.

According to Shuell (1986 :415) Cognitive Psychology is concerned with various mental activities (such as perception ,thinking representation and

memory) related to human information processing and problem solving .The emphasis is no longer strictly on behavior ,but on the mental processes and knowledge structures that can be infested from behavioural indices and that are responsible for various types of human behavior .Cognitive psychology has influenced learning theory and research in several significant ways ,including ;the view of learning as active and constructive process , the presence of higher – level processes in learning , the cumulative nature of learning and the represented and organized in memory , and concern for analyzing learning tasks and performance in terms of the cognitive processes that are involved (El-dali)

One important consequence of the cognitive influence on learning has been an interest in analyzing performance and cognitive abilities in terms of the cognitive processes involved in performing a cognitive task, including performance on tests of mental ability such as intelligence, inductive reasoning, and deductive
reasoning. Such analyses can help us to better understand both the cognitive processes involved in learning and the instructional techniques most likely to facilitate that learning (El-dali)

Most cognitive conceptions of learning reflect an overriding concern for the more complex forms of learning, that is, the types of learning frequently characterized as 'meaningful ' or where one 'learns for understanding'. For the most parts, cognitive psychologists have been interested in the latter approach. As Norman (1978: 39)
put it: I do not care about simple learning that only takes 30 minutes. I want to understand real learning, the kind we all do during the course of our lives... I want to understand the learning of complex topics.... (those) with such a rich set of conceptual structures that it requires learning periods measured in weeks or even years.
It should be kept in mind; however, that one problem with meaningful learning is that it is difficult to define. In this connection, Markman (1981: 63) maintained that "it makes little sense to most people, for example, to say that one understands his or her phone number. We can learn, know, or remember a phone number, but not
understand one". And, only information that is structured organized can be thought of as being meaningful and can serve as an object of understanding (Moravesik, 1979). Various attempts have been made over the years to articulate the role of learning from a cognitive or human information-processing perspective. The following
discussion will focus on those theories that have most influenced current thinking and research on cognitive learning (El-dali)

1. Early Conceptions.

During the late 1950s and early 1960s, several writers began to formulate cognitive theories of learning. For example, Bruner (1957, 1961) talked about learning in terms of 'discovery' and 'going beyond the information given'. According to Bruner (1957: 51), learning occurs when an 'organism... code[s] something in a generic manner so as to maximize the transferability of the learning to new situations'.
The first systematic model of cognitive learning was Ausubel's (1962, 1963) theory of meaningful verbal learning. Another early theory of cognitive learning was Wittrock's (1974) model of generative learning. According to this model, people learn meaningful material by generating or constructing relationships among new information and knowledge already stored in long-term memory. These verbal and imaginal elaborations occur as the learner seeks to discover the underlying rule or relationship "by drawing inferences (about the rule], applying it, testing it, and relating it to other rules and to experience" (Wittrock, 1978: 26). It appears that the primary mechanisms of learning, according to the generative model, consist of the learner making inferences about potential relationships and then actively seeking feedback on the adequacy of these relationships. Bransford and Franks
(1976) suggested that understanding or comprehension involves the acquisition of novel information that is difficult if not impossible for the traditional, 'memory metaphor' model of learning to explain. They suggest that learning that involves understanding occurs via a process of decontextualization. That is, knowledge is initially acquired in a specific context, in order for understanding to occur, this knowledge must become more abstract so that it can be related to a variety of different situations. Bransford and Franks suggest that concepts and knowledge become abstract by virtue of being used to clarify a number of situations, and thus stress the importance of the learning encountering relevant examples. (El-dali)

2. The Cognitive Theories and The Acquisition of L2 Vocabulary

In learning any language, vocabulary is the center focal point of acquisition. As put forward by McCarthy (1992)“without words to express a wider range of meanings, communication in L2 just cannot happen in any meaningful way (p.50)". Vocabulary has been gradually recognized as crucial to language use in which insufficient vocabulary

knowledge of the learners led to difficulties in second language learning(Asgari)**.**

Nation (2000) describes 'learning burden' of a word as the amount of effort that a learner puts in learning the word.According to him, "different words have different learning burdens for learners with different backgrounds and each of the aspects of what it means to know a word can contribute to its learning burden" (p. 23). Thus, in the case of learning the vocabulary in second language, students need to be educated with vocabulary learning strategies. They are mostly persuaded to use basic vocabulary learning strategies (Schmitt, 2000). However, teachers may help todecrease students' learning burdens by providing some organized vocabulary learning strategies for them(Asgari)**.**

Schema and L2 Vocabulary Learning

Students bring their own background knowledge and experiences (i.e., world knowledge) intothe classroom. This knowledge is organized in students' minds in abstract forms called schemas,which emerge through social interactions. Social interactions activate stored schemas and facilitate thebuilding of new ones ,all of which is mediated by vocabulary. If students lack sufficient vocabularyknowledge, their capacity to make self-to-world connections and inferences is hindered It is also important to recognize that word knowledge is not an all-or-nothing phenomenon ,but instead falls along a continuum. Word knowledge incrementally increases from no knowledgeto context-bound knowledge, context-free knowledge, and finally metaphorical knowledge .Teachers who understand the development of word knowledge are more readily able to selectvocabulary instructional practices based on theories that support the acquisition of vocabulary.Teachers who are knowledgeable about vocabulary development make sure that word-learningstrategies associated with teacher–student and student–student interactions are incorporated in theirvocabulary lessons. Examples of such strategies include semantic maps and other forms of graphicorganizers, read-aloud discussions, student-generated definitions, word walls, word games, and sharedjournal/class books. The social dialogue generated through these strategies allows students to make semantic connections, use newly-learned words in their appropriate contexts, and predict unfamiliarmeanings(Stephanie Moody)

Chapter two:
Methodology

CHAPTER 02
RESEARCH METHODOLOGY

2.1 Introduction

This chapter presents a description of the research process. It provides information about method that was used in undertaking this research as well as a justification for the use of this method. The chapter also describes the various stages of the research which include the selection of the participants, the data collection process and the process of data analysis, and discusses the role of the researcher in quantitative research. The chapter is concluded with a discussion of validity and reliability in quantitative research and the way in which these two requirements were met in the current study.

The research explored the challenges faced by young EFL learners in the process of learning new vocabulary and provided easy learning strategies based on long-term memory findings to enhance vocabulary attainments.

2.2 Research Methodology

According to Denzin and Lincoln (2005) a research methodology or strategy is determined by the nature of the research question and the subject being investigated. As a result the research format used in an investigation should be seen as a tool to answer the research question. This thesis aimed at exploring and understanding the process involved in vocabulary learning for young EFL learners. It highlights the main cognitive areas responsible for vocabulary learning and provides a brain based strategies to facilitate vocabulary learning.

This study was guided by the following research questions:

- To what extent can long term memory findings contribute to vocabulary growth?
- How does memory process information?
- To what extent can cognitive and meta-cognitive vocabulary instructions enhance learners' attainment of new lexicon?
- What are the main cognitive strategies used to better vocabulary?

A quantitative research approach was chosen as a methodology because this approach validates the cognitive theory in SLA research.

Data was collected using questionnaires. The next paragraphs outline a detailed justification for selecting specific methods and approaches.

2.3 Justification for using qualitative research

Quantitative research method deals with quantifying and analyzing variables in order to get results. It involves the utilization and analysis of numerical data using specific statistical techniques to answer questions like : what, when, where , who , how much and how many . Going by the above definition, it could be said that quantitative research is based on data and information gathering to support and refute alternative knowledge claims employing specific strategy of inquiry such as experiments, surveys, and collect data on pre-determine instruments that yield statistical data. The main characteristics of quantitative researsh are :

- The data is usually gathered using structured research instruments.
- The results are based on a large sample size that is representative of the population
- All aspects of the study are clearly defined before data is collected
- Data are in the form of numbers and statistics. Often arranged in tables, charts , figures or other non-textual forms
- Researcher uses tools such as,questionnaires, or computer software to collect numerical data .

The main aim of quantitative research study is to classify features, count them and construct statistical models in an attempt to explain what is observed.

In quantitative research the object is explanatory rather than exploratory. The explanatory nature of the approach allows the researcher to provide a full explanation and analysis of the experience with the participants.

The quantitative research was deemed suitable for the research as the purpose of this study was to gather data information about participant's

knowledge about the different learning strategies and how effective are these strategies on their vocabulary attainments .

2.4 The Positivists' Assumptions in The Qualitative Research

Using scientific method and language to investigate and write about human experiences is supposed to keep the research free of personal values, passions ,politics and ideology of the researcher .The positivist researchers believe that they can reach the full understanding of the topic based on experiment and observation ,and interpret the results through rational deduction .furthermore, the positivist researcher strive to discover objectively the truth hidden in the subject's mind .

The quantitative methods has,in fact ,been largely underpinned by the positivist principles, for that it is the most appropriate philosophical assumption for this research that seeks to answer the question of the best memory strategy for vocabulary enhancement .Additionally , this research followed the positivist assumptions ,because it tried to link the variables.i.e the preferable learning strategy for every learner.besides it test the cognitive theory and it effectiveness in vocabulary learning strategies (VLSs) ,and testing the research hypothesis that claim that students could improve their vocabulary attainments through the use of memory strategies

2.5 Instruments of the study.

2.5.1.Data Collection Process

There are four main types of quantitative research methods. Primary quantitative is the most widely used. The distinct feature of primary research is that the researcher collects data directly rather than relying on data from previous research. This research follows a different process for data collection.

2.5.1.1.Survey

Survey research is a collection of data attained by asking questions to individuals either online or on line or on papers , it is a form of primary research that gathers data first-hand from the its sources .

The research design as a descriptive design study with quantitative approach. CRESWELL (2012 p. 376) stated that " we use survey research in order to determine individuals opinions"

2.5.1.1.1 Justification for using survey

Survey research is the most fundamental tool for all the quantitative research studies and methodologies. Surveys are used to ask question to a sample of respondents using various types such as online polls, questionnaires and online surveys. In another words, surveys are used to process large quantities of data scientifically when needed to be researched. Therefore, this study depends on the quantitative data collection methods.

2.5.1.2 Observation

One of the Quantitative instruments is the use of observation .This instrument was used in this study to analyze the students attitude in the classroom and how they interact with the brain based activities

2.5.1.2.1 Justification for using observation

Observation becomes a tool for scientific inquiry when it

- Severs a formulated research purpose
- Is planned systematically
- Is recorded systematically and related to general proposition rather than being presented as reflecting a set of interesting curiosities .
- Is subjected to checks and controls on validity and reliability.

Thus, this research used this observation method in order to gather data from the students interactions especially towards visual imagery activities .

2.5.1.3 Experiment

One of the main founding of quantitative research; experimental research.

Experimental research is any research conducted with scientific approach of where a number of variables are kept constant and other set of variables are being measured as a subject of the experiment. It is important is experimental research to cause and effect phenomena.

True experimental research is the most accurate form of experimental research design as it relies on statistical analysis to prove and disapprove hypothesis this latter is tend to be the only type of research that can establish cause and effect relationship within a group .

2.5.1.3.1 Justification for Experiment

Experiment research is an important part of the study because

- The research is conducted with a scientific approach.
- Set of variables are being constant where the others are being tested
- It is based on the factor of cause and effect.
- Results are specific.
- Once the results are analyzed they can be applied to other similar aspects.

2.5.1.7 Sampling

This research focused on a relatively small sample. Research participants were selected to provide rich description of the experience andthereby providing information that is rich and which will be able to challenge and enrich the researcher's understanding.

Participants of this research were Middle school students from both gender aged between 11 and 16 years old. The common feature between them is that they are beginners in English.

The different cognitive vocabulary instructions listed on the literature review were tested on that sample group who provides good interactions with the different activities presented during the experiment.

Chapter three:
Data Analysis

Chapter Three

Practical Framework: Data Analysis and Results

3.1 Introduction

This chapter presents the results of data analysis of this study. As has already been mentioned in the previous chapter, this study was based on a questionnaire, classroom observation in addition to an experiment conducted with students to inspect if the participants hold VLS and to what extant are they aware of them. The main concern of this research isthe different learning strategies used by young EFL learners. The questionnaire aimed for classifying students' preferable vocabulary learning strategies and understanding. Classroom observation aimed for clarifying the process of learning in language classroom. And the practice shaped the study by validating the efficiency of the vocabulary learning methods.

3.2 Sample Population

The ground that was picked to conduct this research isALmaahed pro international company, a languages institute in Medea. This sample was chosen because the policy of this institute is based on using modern ways for language instructions and the number of students is sufficient to conduct this study in addition to that this institute can reflect the different attitudes towards language learning.

3.2.2 Students' Profile

The subjects of this study are middle school students of English. The study was conducted on thirty four (34) students of this institute aged between eleven (11) and sixteen (16) years old, eight (08) of them are males and twenty six (26) are females

3.3. Data Collection Phase and Research Design

The research methodology has been conducted is based on series of data collection tools. The instruments that were used in this

investigation are: Questionnaire; a number of questions intended to cover the possible angles and issues starting from students' personal information, to their assessments and evaluation to their own skills level, their knowledge of VLS, how they learn vocabulary and the strategies they use to improve their own vocabulary list. Observation which is an instrument that help researcher to gather the data needed to describe the characteristics of the variable being studied. And Experimentwhich is a fundamental part of the quantitative research that help researcher validate the variables .

3.3.1 **Classroom Observation**

Observation is a part of the research instruments that was used to gather data during the process of this study. The English language class of the first year was the subject of this observation. The main aim was to see basically the strategies and techniques that teachers in Almaahed use when teaching vocabulary tobeginners and the techniques that students use in learning vocabulary.

The presence of the researcher in the classroom should be neutral and must not interfere with the environment that students used to behave and participate.

This research seeks to find out how the students learn vocabulary and what are the strategies and techniques they use during learning vocabulary. Observation was the best way to know the strategies, materials and methods of instruction used by teachers during reading and grammar class to teach students vocabulary and lead them to use the best learning strategy.

The session an hour of time, the teacher started the session by a warm up to attract the students' attention. Then they had a quick revision of the previous lesson, then started giving them handouts and instructed them to underline the difficult words, then they read the text together, the teacher demanded from the students to guess the meaning of the underlined words from the context by the end he asked them to check the meaning of the words in the dictionary. at the end of the session the teacher asked

students to work in groups and mime the words to their partners who have to use the word in a sentence .

The following notes were taken from observing the above mentioned activities:

- The students were given enough time to guess the meaning of the words from the context
- The students were free to use their dictionaries to check the meaning of the difficult words
- The students were asked to give the meaning of the words and their synonyms
- Teachers ordered the students to use the vocabulary in sentences .

3.3.2 **Students' Questionnaire**

The students were asked to answer sixteen (16) questions (see Appendix I), thirty four (34) questionnaires were distributed to students of different levels who were chosen randomly . The following questionnaire is semi-structured containing sixteen questions starting with personal information of students , their age , gender , level at school and their level in English and the other questions were about the different vocabulary strategies employed by learners .The items were yes no questions and multiple choice questions where respondents were required to selected one answer.

Section one : Personal information

- **gender&age**

This question of the questionnaire describes the gender and the age of the sample population. Both of these two main data are considered as an independent variables, the first enables to know what generation the participant belongs to and the second helps to set percentage of male and female in the sample

- **Learners' level**

The aim behind this question is to show the different levels of students' since all of the participants are selected randomly and all of them are middle school students.

- **Question one** ; Level in English .

This question attempts to discover students' language abilities and how able they are in understanding and using the language.

- **Question two** : Do you consider your vocabulary enough to express your ideas ?

The purpose of this question is to see whether students' vocabulary is enough to perform different language tasks or not.

Section two: Strategies of learning vocabulary.

- **Question three :**always try to add new vocabulary to my lexical luggage.

the question aims at knowing how important learning new words to learners is.

- **Question four** : I try to understand the meaning of the new word from its context.

The main reason behind this question is to see if learners rely on their own abilities and the data given to them to figure out meaning of words without the support of teachers or dictionaries

- **Question five ;** When I find a difficulty to understand the meaning of a word in a text I highlight it so as to look for its meaning later on .

This question was added to find out if learners are keen to learn new vocabulary.

- **Question six** use dictionaries to grasp the meaning of difficult words.
- **Question seven :** I prefer to learn new words through …

The students were given three suggestions, pictures, text or list of words.this question attempts to highlight the method most effective in vocabulary learning for young EFL learners that enables them to store and retrieve words easily.

Section three: The use of vocabulary learning strategies

- **Question eight:** I learn a word (Memorize it) by drawing it instead of writing its meaning .

- **Question nine:** Visual aids enable me to learn vocabulary easily.

- **Question ten:** I use a specific color to highlight a difficult word to make it easy for me to remember it.

These three main questions test students use of the audio-visual learning strategies. Sensory memory is based on the main senses to detect and store information. If learners answers yes to these questions, this indicated that this learning method is accessible to everyone .

- **Question eleven :**I use mind map to make vocabulary learning (memorizing) easy for me .

- **Question twelve :**I use mind map to memorise the word , its synonyms and antonyms .

These questions aim precisely at knowing whether the learners rely on this visual tool to help them structuring information and concepts of the words to better analyze, comprehend, recall and generate new words.

- **Question thirteen :**I chunk words to memorize them easily.

This question aims at testing whether students uses specific way to group words together for easy learning .

- **Question fourteen:** I try to memorize a list of words by visualizing its location in my mind.

This method is known as the method of lucy , some learners depends on their visual memory to memorize words , this question test students ability to make use of their visual memory to learn

- **Question fifteen:** I use meaningless list to memorize words with the same rhyme. (three–tree).

This question also rely on the sensor memory to learn .To test if learners learn through sounds for make it easy to memorise

- **Question sixteen:** I use words that have approximately the same pronunciation with my mother tongue to memorize it easily .

This is known as the peg-word system which rely between the learners' mother tongue and the target language to make it easy to remember words.

3.5. Data analysis phase

In data analysis phase the questionnaire will be analyzed in the following charts and tables .

3.5.1 Analysis of students' questionnaire

Personal information

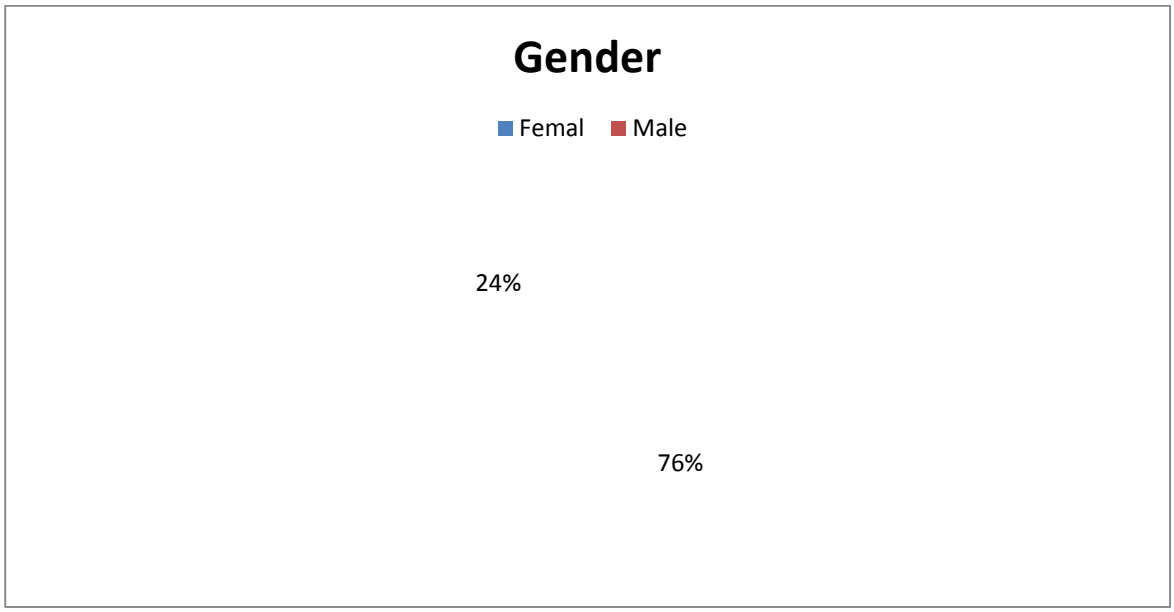
1- : the table and charts show the different variables (Age and gender)

A – Gender

Age	Gender	
Between 12 to 16	Male	female
	8	26
	24%	76%

Table 3.1 Learners' Gender

The thirty four participants are divided into males and females and , thus constituting percentage of 24% male (08) and 76% female (26), their ages are between 12 and 16 years old as it is shown in the table . This variety of participants can offer different attitudes to vocabulary learning process.



Pie-chart 3.1 Learners' Gender

Even though the number of participants was small, this variety can give different attitudes on the vocabulary learning strategies.

B- Age

Age	12	13	14	15	16
From 12 to 16	7	9	7	7	4
	20%	26%	21%	21%	12%

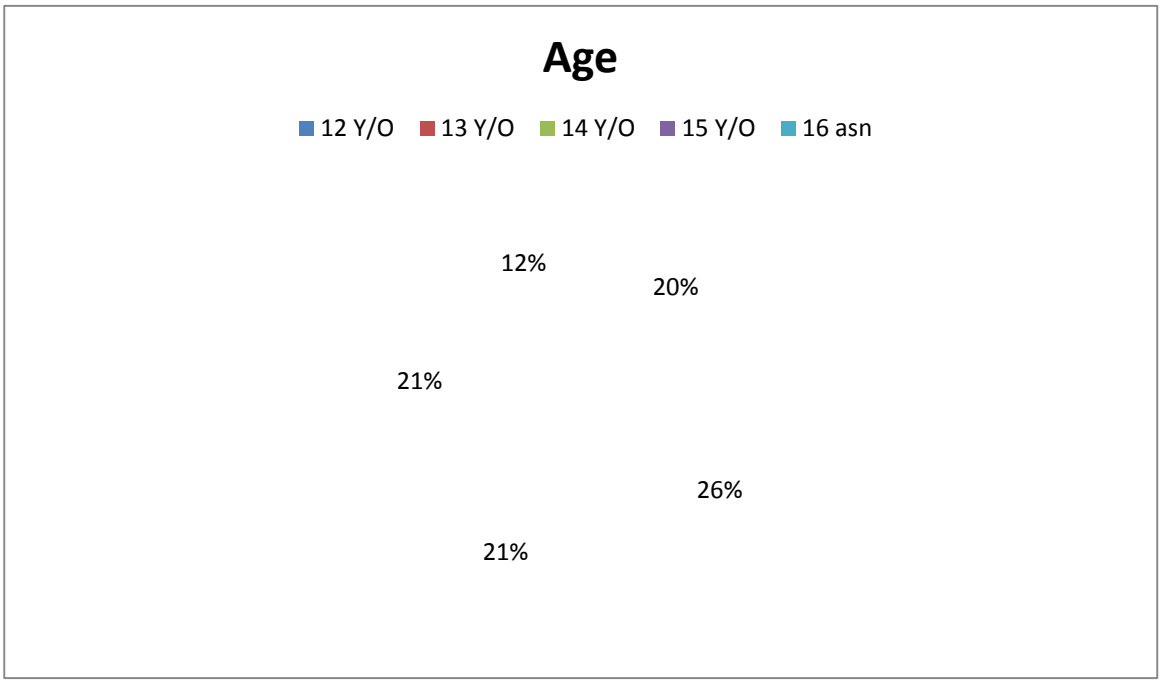
Table 3.2 Learners' Age

The participants of this research are students of middle school, that's why variation of age in this sample is something expected.

The participants of this research are students aged between twelve (12) and sixteen (16) years old. Among thirty four (34) participants seven (

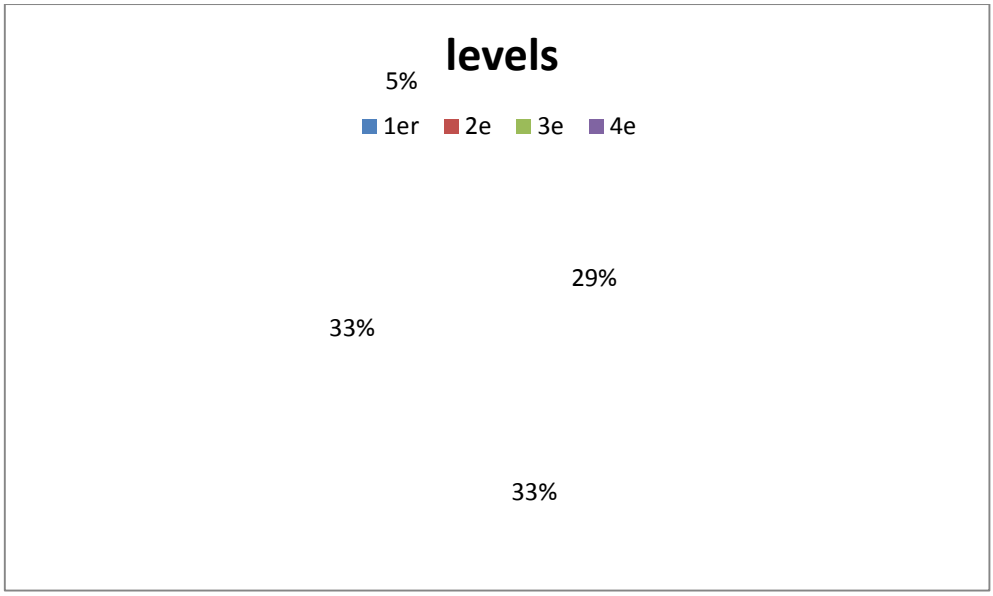
07) of them are twelve years old (12) , nine (09) of them are thirteen years (13), seven of them are fourteen (14), and the number of learners aged fifteen (15) are seven (07) and the remaining -04-participants are sixteen years old .

The percentage of the participants is illustrated in the following pie-chart.



pie chart 3.2 Students' age

2- This pie-chart below represents Learners' level



Pie-chart 3.3 : Learners' level

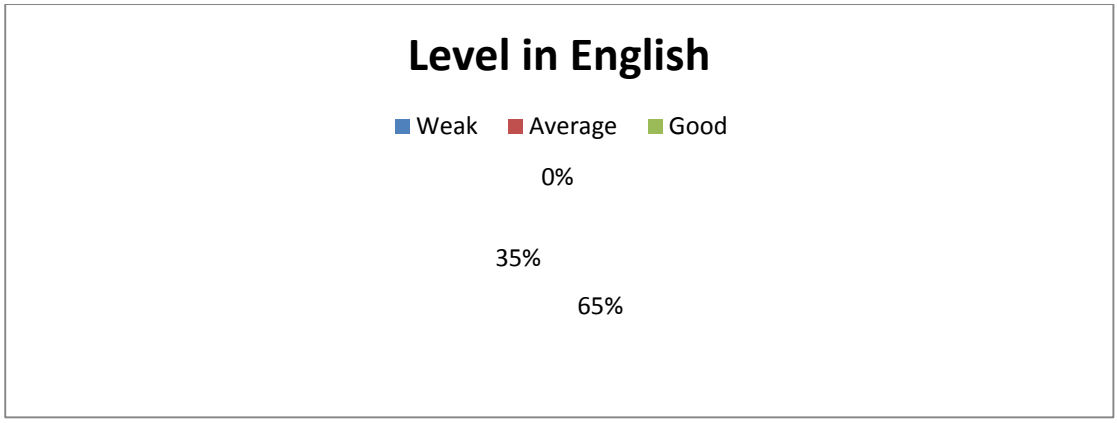
The result shows that 29% are first year students, 33% are second year students and 33 % are third year students and only 5% of the total number are students of the fourth year .

- **Question one: This table shows learners' level in English**

Level in English	Weak	Average	Good
	0	22	12
	0%	70%	30%

Table 3.3 Student's level in English

The ability to evaluate one's own level is the key feature of a successful learner, this table indicates learners own evaluation to their level in English. Twenty two (22) of students classified themselves as an average student , and the remaining twelve describes themselves as good in English . the pie-chart below represents the percentage of students' language proficiency.



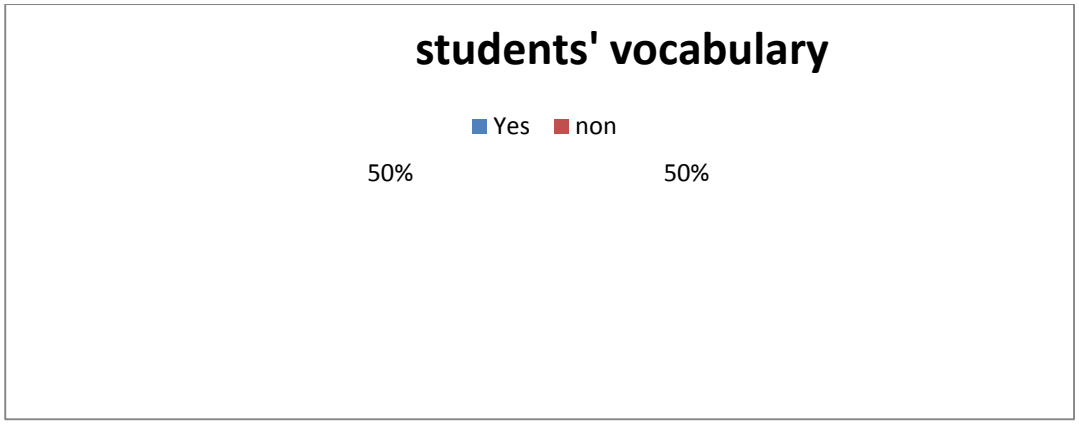
Pie-chart 2.4 Students' Language level.

- **Question two :**The illustration below represents students' English vocabulary balance.

Students' Vocabulary Balance	
YES	NO
17	17
50%	50%

Table 3.4 Students' vocabulary balance

As it is illustrated in both of the table and the pie-chart below the result of the question is equal. (50%) of learners believe that they have enough vocabulary to communicate their ideas. However, the other (50%) of learners claimed that their vocabulary is not enough to communicate and describe their own thought .



pie-chart 2.5 Students' vocabulary balance.

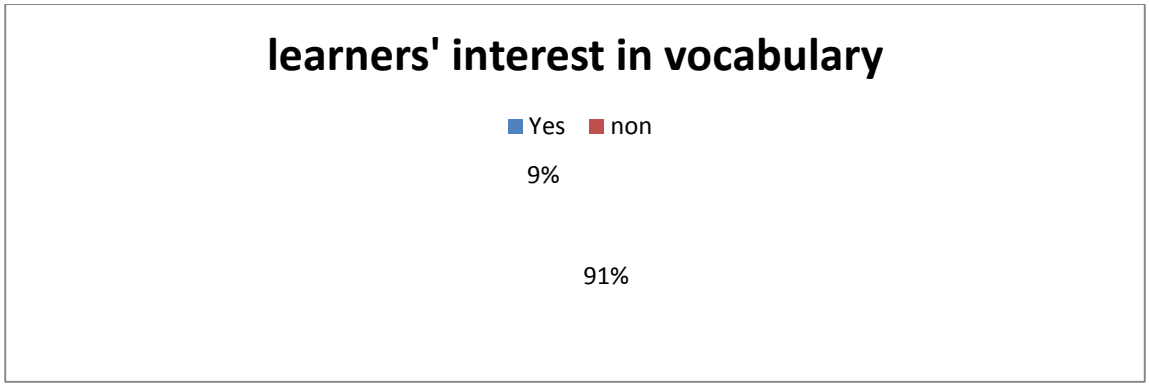
Section Two : Strategies of learning vocabulary

- **Question three:** I always try to add new vocabulary to my lexical luggage.

YES	NO
31	3
91%	9%

Table 3.5 Students' interest in Vocabulary

In (34) participants (31) of them showed their interest in learning and improving their own vocabulary, only three (03) did't give any interest to vocabulary .



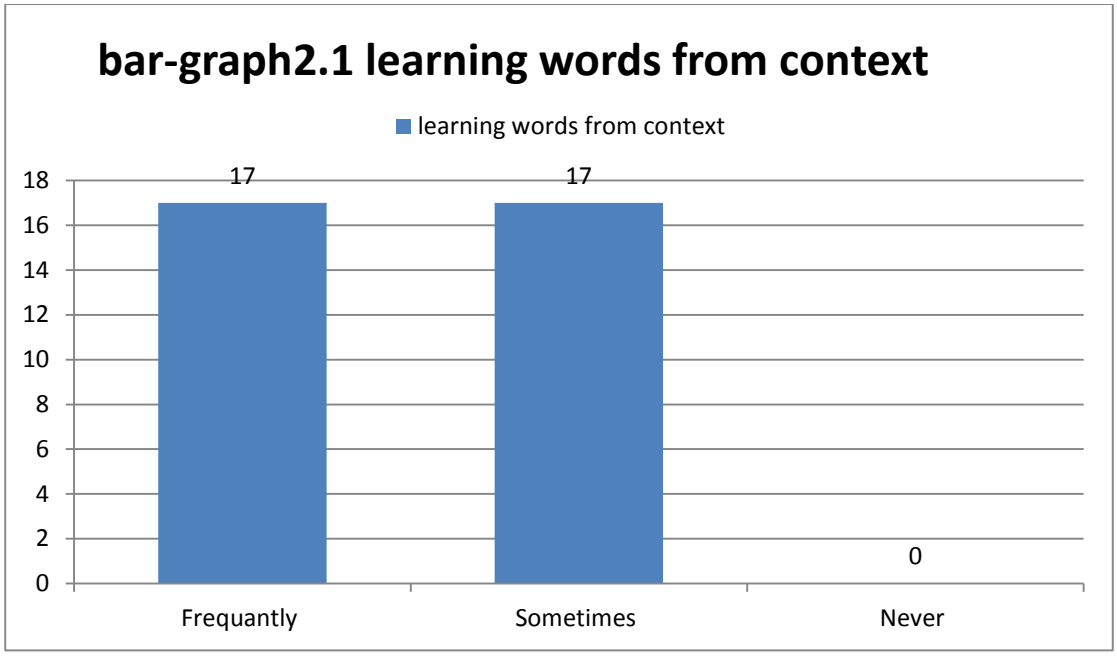
Pie-chart 2.6 learners' interest on improving their vocabulary

Question four: I understand the meaning of the word from the context .

Frequaently	17	50 %
Sometimes	17	50 %
Never	00	00 %

Table 3.6 Learning words from context.

The table above shows that 17 respondents of the whole sample 50% claimed that they Frequently learn vocabulary from the context in the text . the other 50 % of the respondent said that they sometimes learn words from the context . The last option was never and none of the students selectedit .The results are shown in the following bar-graph.

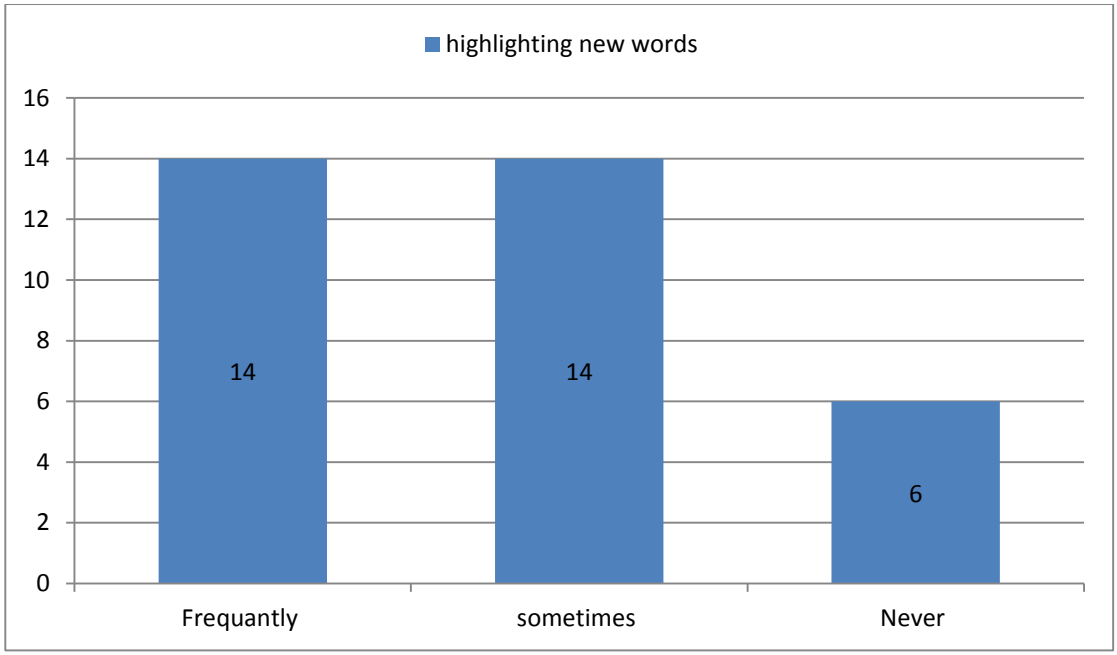


- **Question five :**When I find difficulty to understand the meaning of a word in a text I highlight it so as to look for its meaning later on.

Frequently	14	41%
Sometimes	14	41%
Never	06	18 %

Table 3.7 highlighting new words to check it later .

As it can be seen, the aim of question number five is to know whether students give importance to know the unfamiliar words when they encounter them in the text. 41% of respondents claimed that they frequently highlight it to check it later. However, the other 41% said that they sometimes highlight them . and rest 18 % of the whole sample said that they never do that.



Bar-graph 2.3 Highlighting new words .

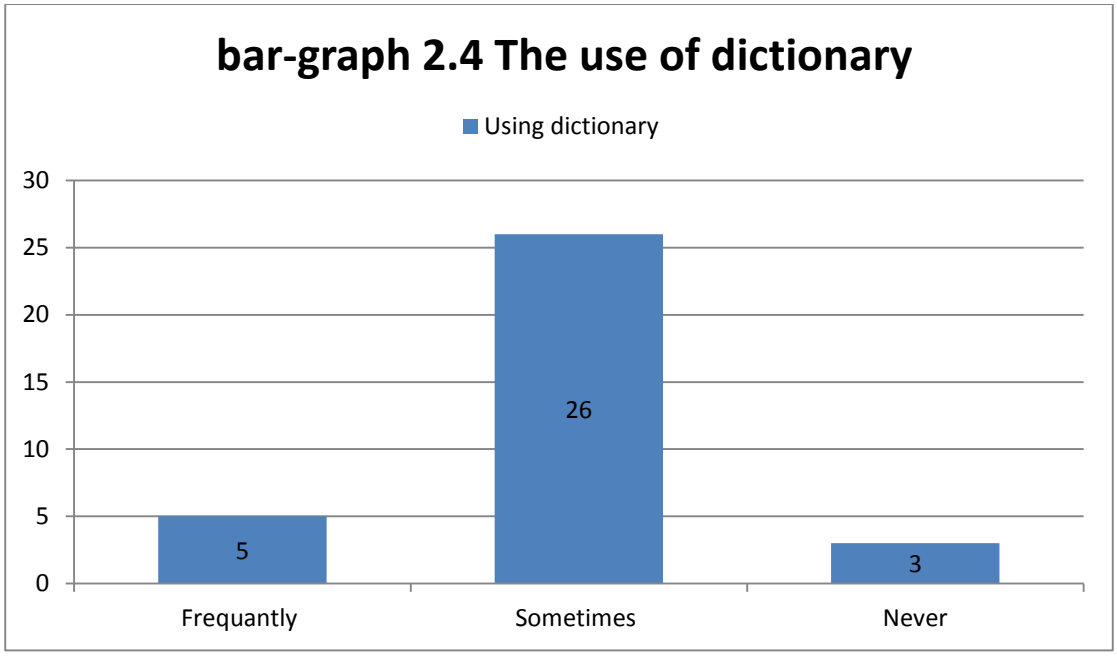
- **Question six:** Using dictionary for difficult words

Frequently	5	15%
Sometimes	26	76%
Never	3	9%

Table 3.8 Frequency of using dictionary in learning words

In order to know the different ways of learning vocabulary this question, together with others was implemented. This question as shown in the table represents the number of students who rely on dictionary to learn new words. 5 respondents 15% claimed that they frequently use dictionary to check the meaning of new or difficult words they met. 26 participants 76 % said that they sometimes do that. Only 3 participants 9% said that they never use dictionaries.

The following bar-graph will represent the result of this data.



❖ **Question seven**: I prefer to learn new words through :

- Pictures
- Texts
- List of words

Pictures	10	29
Texts	15	44
List of words	09	26

Table 3.9 Students' preferable way to learn vocabulary

Section three: The use of vocabulary learning strategies

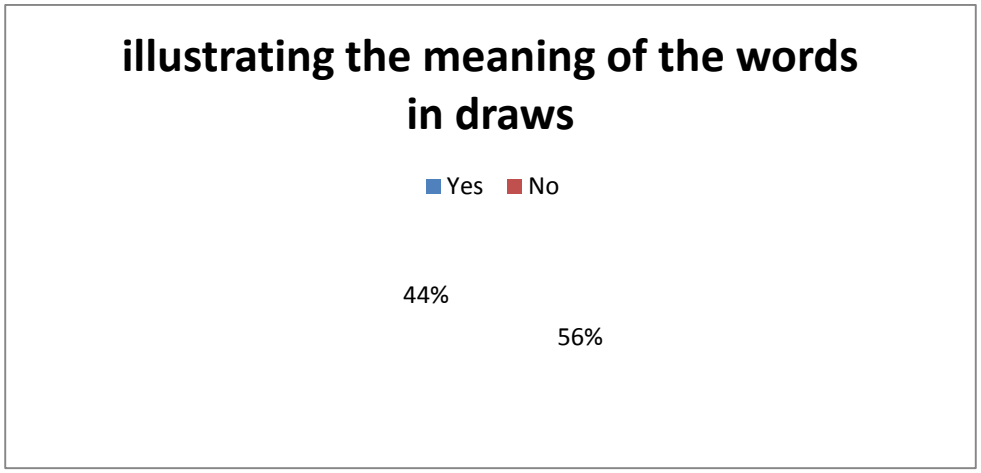
Some learners use different ways to facilitate their vocabulary learning without even being aware that the method used is adapted a strategy to teach and learn vocabulary . the following questions tests learners' ways to enhance their own vocabulary .

❖ **Question eight:** I learn a word (Memorize it) by drawing it instead of writing itsmeaning.

YES	NO
19	14
56%	44%

Table 3.10 The use of visual memory to learn

The purpose of this question is to reveal whether students rely on their visual memory to remember the meaning of the words or not. Results of this question are presented on the table and the pie-chart above. (19) respondents 56% claimed that they find drawing a illustration for the meaning of the word instead of writing it in letters an easy aspect of learning vocabulary, since this way of learning rely on visualizing the word in the memory, the latter makes it so easy to call it back . (14) Respondents 44% claimed that they never use this way to learn , they just write the meaning of the word next to it using their mother tongue .



Pie-chart 2.7 illustration of words' meaning in draws

- **Question Nine:** Visual aids enable me to learn vocabulary easily.

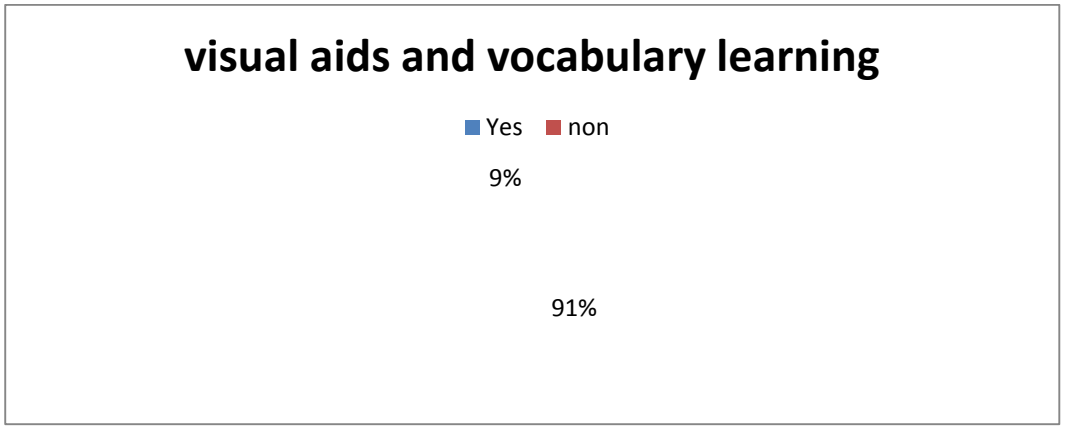
  The use of the audio-visual materials to support the learning process is the key feature of modern classroom. This question aims to know if the visual materials used by teachers to support their lesson reinforce vocabulary learning. The following table

and pie-chart represents learner's answers to the above mentioned question.

Yes	32	91%
No	02	9%

Table 3.11 Learning vocabulary through visual aids .

(32) of the participants 91% claimed that visual aids help them to learn and remember words easily in comparison to other learning methods since the latter rely on activating different part of the brain to process and store information. Only (02) participants said that the visual aids do not help them to learn words easily.



Pie-chart 2.8 learning vocabulary through visual aids

The audio-visual materials used in language classroom aims at improving the different learning skills based on activating the function of the different sense of the sensory memory for better learning.

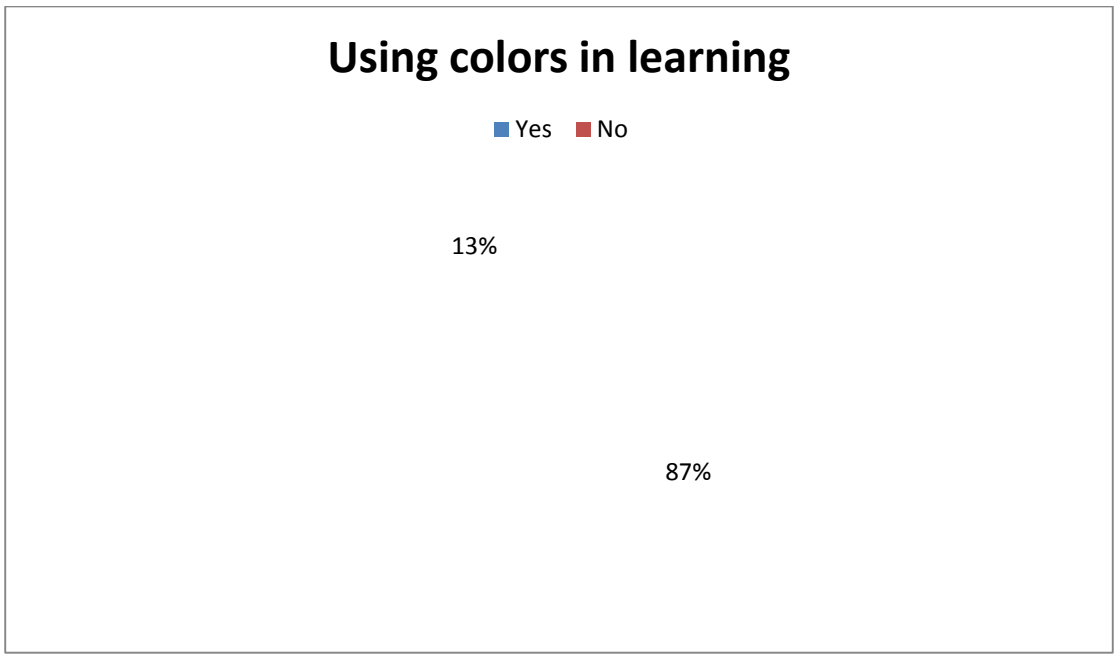
- **Question ten:**I use specific color to highlight difficult word to make it easy for me to remember it.

The main aim behind this question is to see if learners rely on their visual memory to store information. The use of colors is an easy way to store and retrieve information based on sensory memory findings. The following table and pie-chart illustrates learners' answers on this question.

YES	NO
21	13
87%	13%

Table 2.12 Using colors to facilitate words learning .

(21) of the participants 87% said that it is easy for them to learn a word and memorize it when they highlight it using specific color.(13) of them 13% claimed that they do not use specific color to highlight difficult word to make it easier for learning.



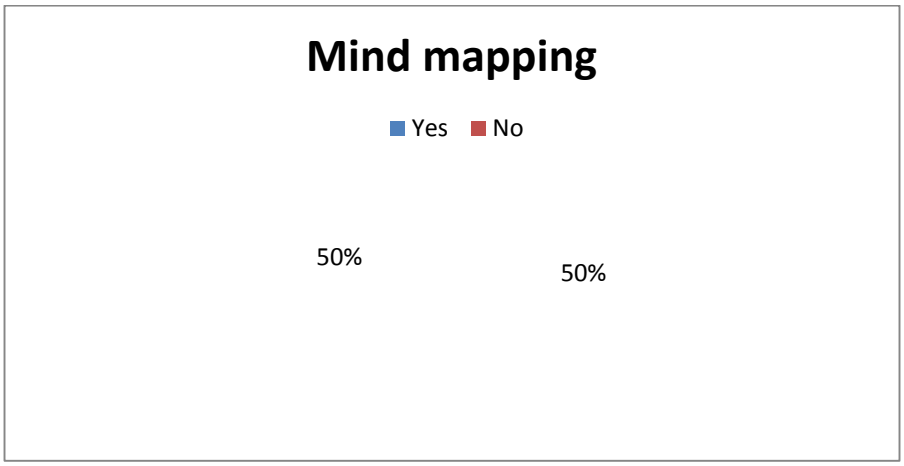
Pie-chart 2.9 Highlighting words for better vocabulary learning.

- Question eleven :I use mind map to make vocabulary learning (memorizing) easy for me .

YES	NO
17	17
50%	50%

Table 3.13 Using mind mapping to organize learning .

According to the questionnaire (17) of the participants 50%. Since this methods organizes the vocabulary in a way that make it easy for learner to classify words according to their nature. The other (17) participants 50% claimed that they do not use mind mapping as a method of learning.



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Pie-chart 2.10 learning vocabulary through mind mapping .

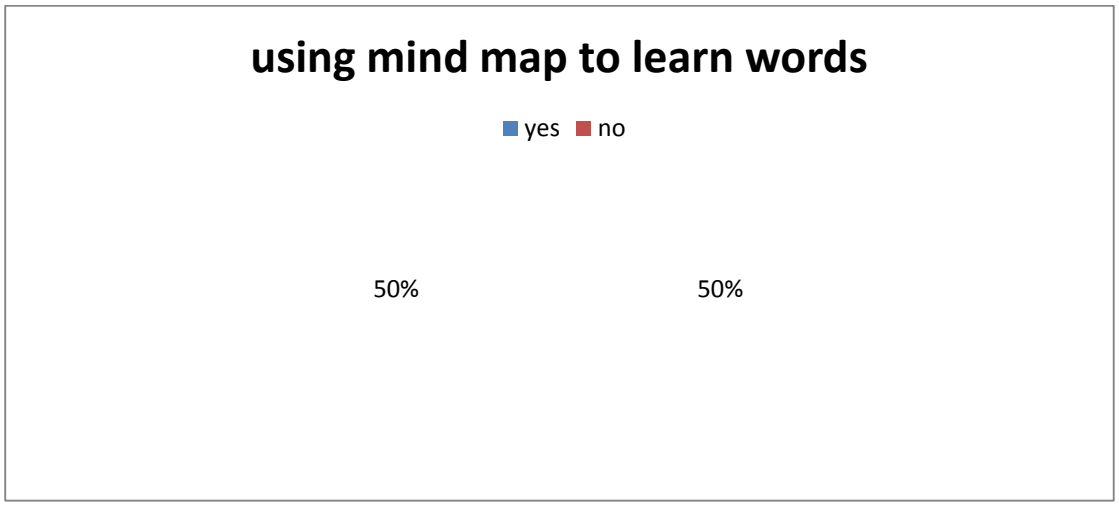
- **Question Twelve :**I use mind map to memories the words , its synonyms and antonyms .

Just like the previous question, this question aims to find out if learners rely on mind mapping to classify words for better learning.

YES	NO
22	12
65%	35%

Table 3.14 Using mind map to learn words, their synonyms and antonyms

According to the data presented on the table (22) participants 65% classify their vocabulary in a mind map since the latter organizes words, their synonyms and antonyms in a way that makes it easy for learners to understand memories and retrieve words.



pie-chart 2.10 using mind map to learn words, their synonyms and antonyms

The remaining (12) participants 35% claimed that they do not rely on mind mapping to learn and memorize words.

- **Question thirteen** I chunk words to memorize them easily.

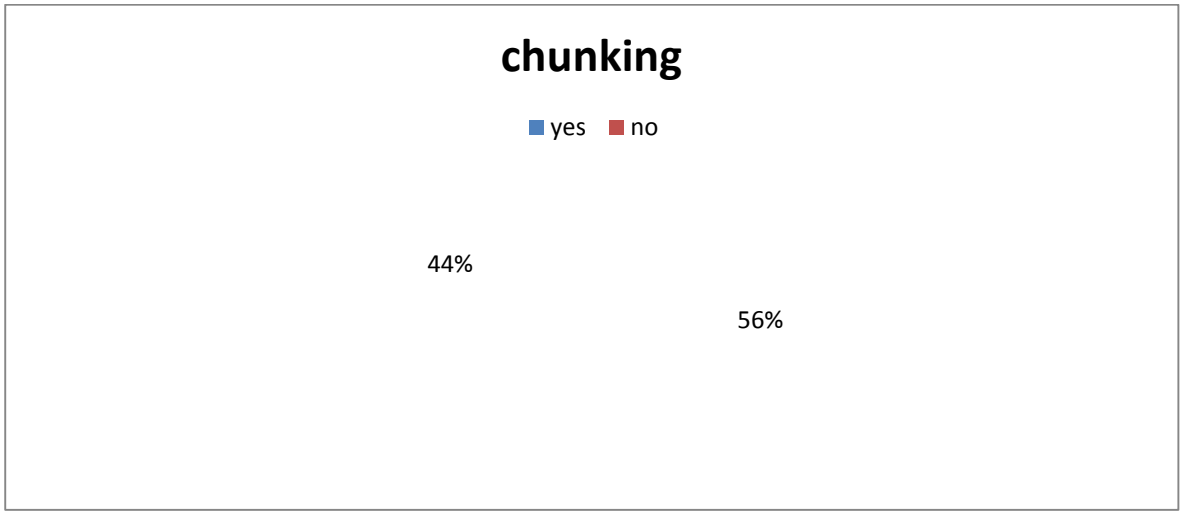
Chunking is the easiest way to transfer information (list of words) from STM to LTM . This question checks if learners group words together for easy rehearsal and better learning.

The table and the pie-chart represent the number of participants who adopt this strategy to learn easily.

YES	NO
19	14
56%	44%

Table 3.15 Chunking a list of words .

According to the data presented on the table 19 of the sample population 56% group words together (chunk them) to make it easier and effective in to store and retrieve new words .However, 14 participants claimed that they never use the way to memorize words .



pie-chart 3.11 chunking a list of words

- **Question fourteen:** I try to memorize a list of words by visualizing its location in my mind.

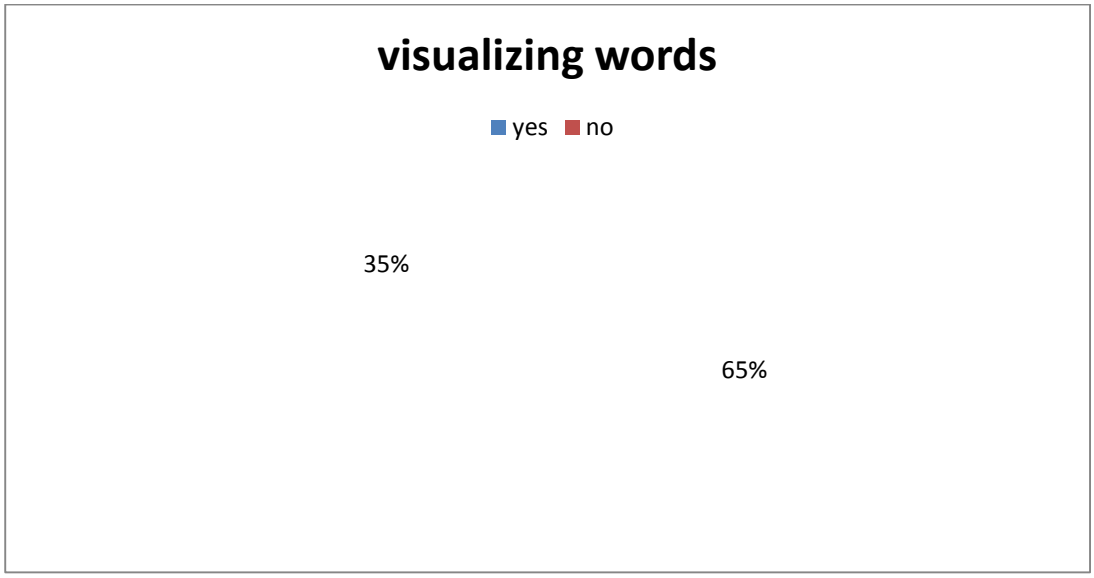
Sometimes we remember name of things by relating them to their exact location on the real world and imagine the way they are organized in our mind. This method of learning is known as TheMethod of Loci which involves a general strategy for associating an item that need to be remembered with the location that can be incorporated into visual image.

The following table presents the number of students who usually learn name of things by locating it.

YES	NO
22	12
65%	35%

Table 3.16 visualizing words' location in reality

(22) of the participants 65% answered yes; they visualize the words' location in their minds when they try to learn it . and 12 of them 35% said that they do not do that.



Pie-chart 3.12 visualizing words' location

- **Question fifteen :**I use meaningless list to memorize words with the same rhyme.(Three–Tree- Free).

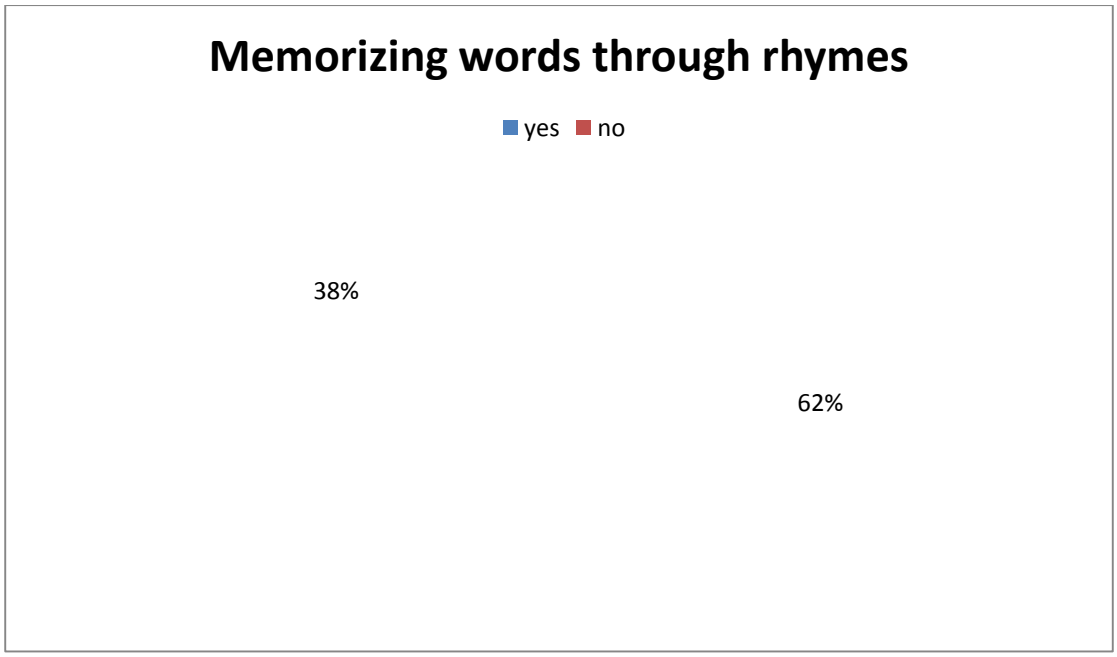
This way of learning make it easy to the ear to adapt the rhyme of the words, the latter makes learning (memorizing) through listening easier and quick.

The table represents participants' answers on this question

YES	NO
21	13
62%	38%

Table 3.17 using rhymes for learning

As it can be seen, 21 of the participants 62% make vocabulary in a random list with a special rhyme to make it easier for them to rehears it and retrieve it back when needed . 13 of the sample claimed that they do not make any list to memorize vocabulary.



Pie-chart 3.13 using rhyme for learning

- **Question sixteen**: I use words that have approximately the same pronunciation with my mother tongue to memorize it easily.

Some words have the same origin as learners' mother tongue. That's why they are pronounces the same way. This question aims to see whether learners make use of these similarities to learn and remember words.

3.5.2 Interpretation

Data analysis has exposed that the students find learning vocabulary to be an important part of in language learning. The previous results have revealed that most students give much importance to

vocabulary as being the basic of language. The previous analysis shows that learners adapt specific learning strategies for better vocabulary attainments. According to students claim through the questionnaire the main ways for their learning are audio-visual aids,(videos, pictures and draws) which is part of the cognitive strategies since the latter rely heavily on the sensory memory to store information. In addition, it is noticeable that most students work to improve their lexical luggage by highlighting unknown words and using their own special methods for better memorizing.

The results of the questionnaire show also that most of learners use different cognitive learning strategies to facilitate their learning. Visual learning methods are the methods most used in learning since it enables them to retrieve information faster when needed.

3.4.3- Classroom Experience:

As a part of quantitative research tools classroom practice was necessary for the validity of this work.

The teaching experience was held in Almaahedpro company with middle school students, the class was made of 11 students of different levels aged between 11 and 15 years old , the only thing in common between them is they are all beginners in English The aim of the session was to teach vocabulary using different cognitive vocabulary learning strategies .
The session started by brief explanation of the activities and instructions of the vocabulary learning strategies used, the strategy that was used was the visual-imagery strategy, which relies on audio-visual aids for instructions. The famous story "The Ant and the Grasshopper" was presented to the students in a video. Before, the key words were presented in a power point slid to make it easy for learners to understand the story.
Later on the video was played on three different step. First without any aids to push students to listen deeply , second the video was played again with subtitles to enable students to read and listen and pay attention to the location of the key words in the sentence, finally , the video was played another time , using subtitle and with the help of arrows to indicate the key words. By the end of the video students were asked to recall all the words that was mention in the video and using them in sentences

The following notes were taking during the experience for students' interaction during the different steps of presenting the lesson:

1. When the words were presented in the power point all learners took their note book to write down their meaning, except four (04) of them who kept watching without any reaction.
2. When the words were pronounced, all students repeated after us to learn the exact pronunciation.
3. When the video was first played nine (09) students gave their full attention to the plot of the story, however two of them were absent-minded.
4. When the video was played with subtitles students begun to interact two (05) of them were reading at the same time with the video, and the rest (06) were watching in silence.
5. When the video was played for the last time all student pay attention, none of them was busy or carless.
6. When we asked learners to name to key words by showing them pictures, (05) of them could name all the object in the picture (02) of them answered between 03 and 05 correct answers and the remaining (03) students refused to participate.

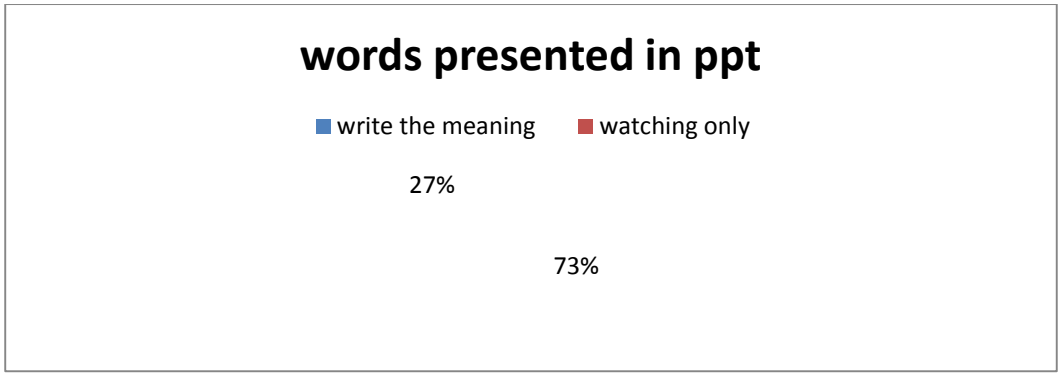
3.5.4 Data of the Experience :

The following pie charts and tables represent students' interaction during the application of visual imagery method of learning in classroom.

- **Step one :** Presenting words in ppt format

Step one		
Students who took notes	**04**	**21%**
Students who kept watching	**11**	**73%**

Table 3.18 introducing new words

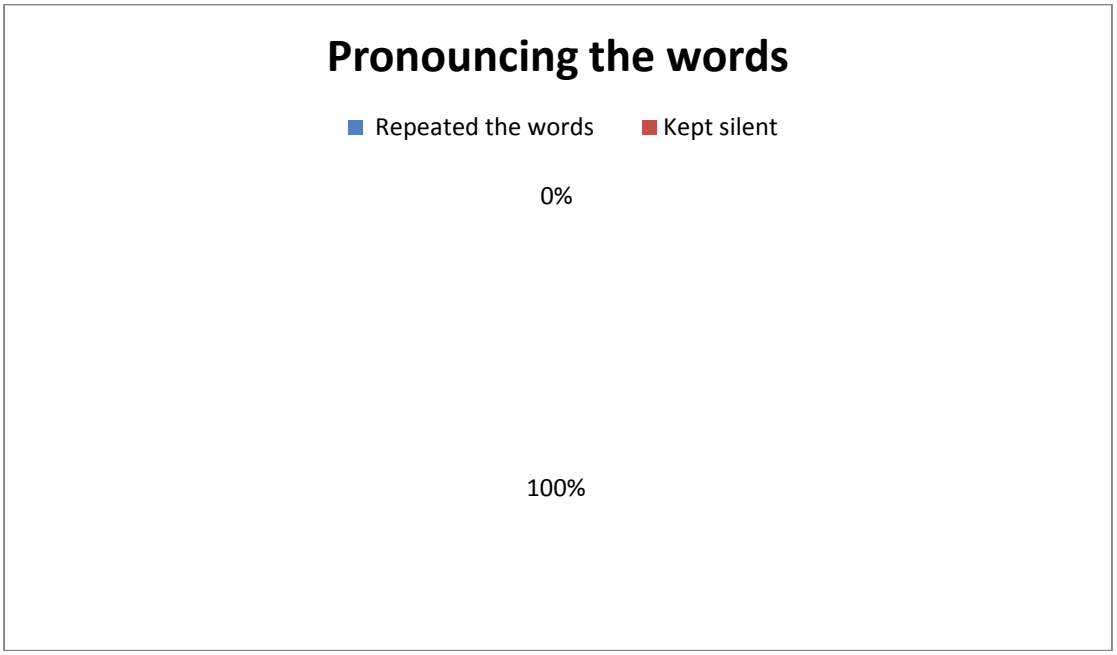


Pie-chart 3.15 Introducing new words

- **Step two**: Reading the new words out loud

Step two		
Students who were repeating with the teacher	**11**	**100%**
Students who kept silent	**00**	**00%**

Table 3.19pronouncing the new words

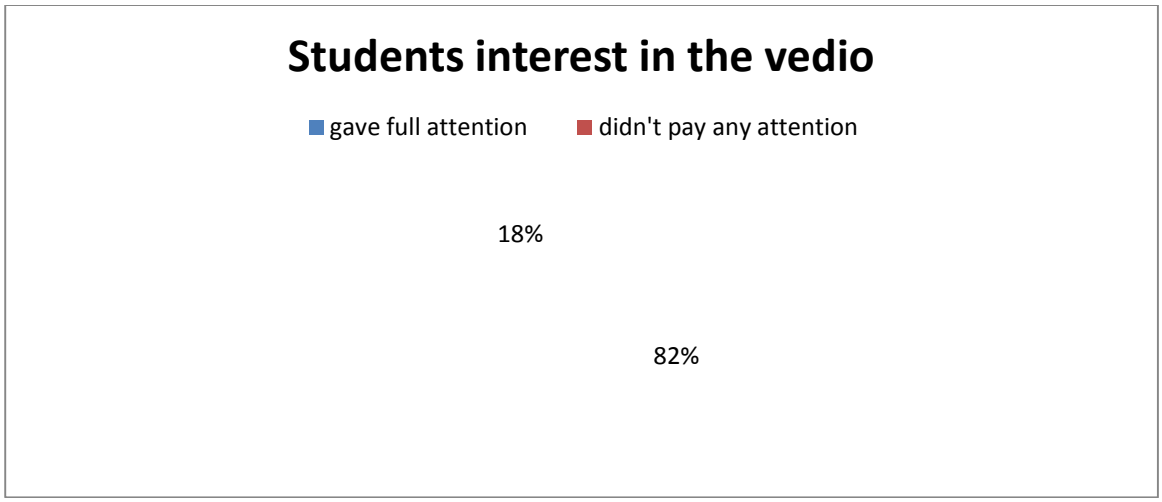


Pie-chat 3.16 pronouncing the new words

❖ **Step three:** Playing the video

Step three		
Students who gave full attention	**09**	**21%**
Students who didn't pay any attention	**02**	**73%**

Table 3.20 Students' attention to the video

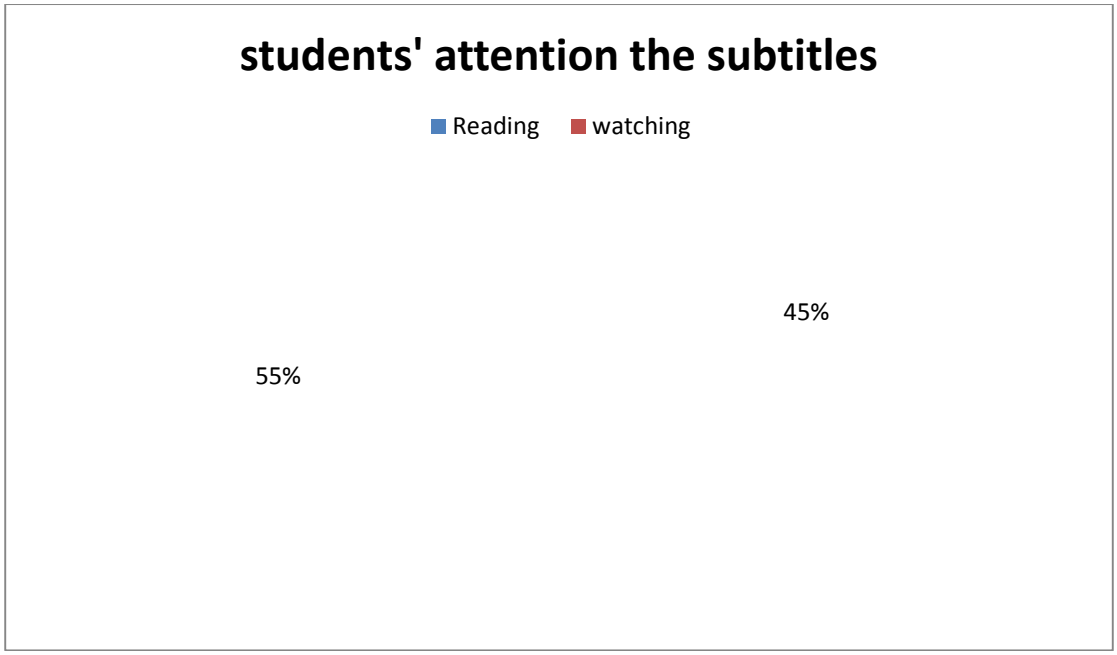


Pie-chart 3.17 students' attention to video

❖ **Step four:** Playing video with subtitles

Step four		
Students who followed the subtitles	**05**	**55%**
Students who were watching only	**06**	**45%**

Table 3.21 students' attention to subtitles

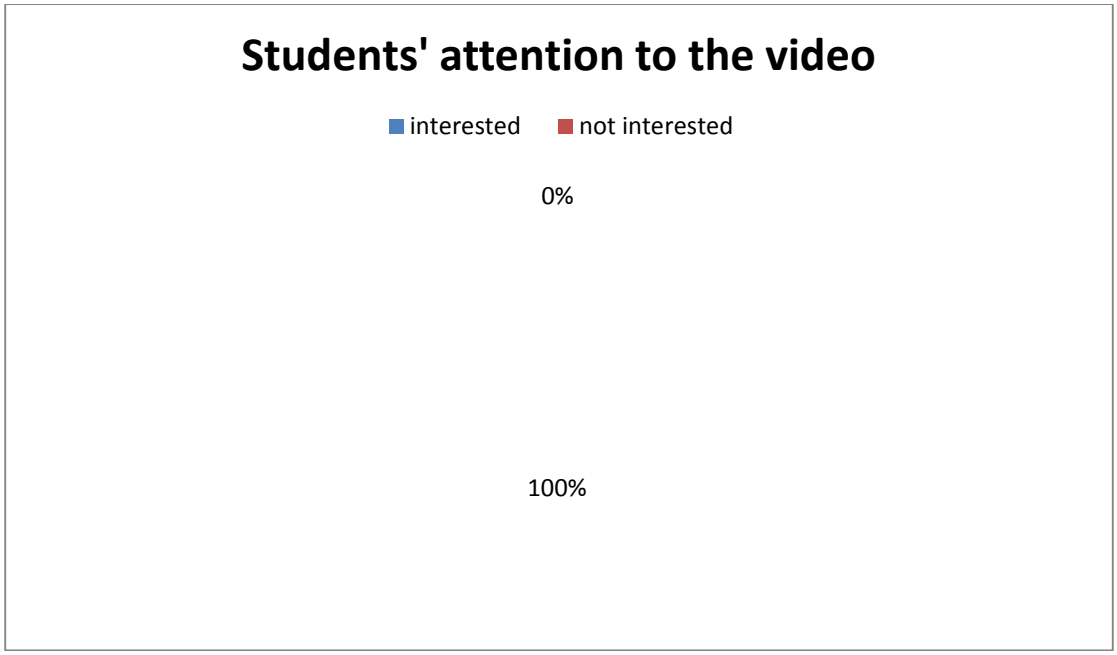


Pie-chart 3.18 students' attention to subtitles

- **Step five:**playing video with subtitles and arrows to indicate the key words

Step five		
Students interested in the video	11	100%
Students who are not interested in the video	00	00%

Table 3.22 students' interest to the words in context

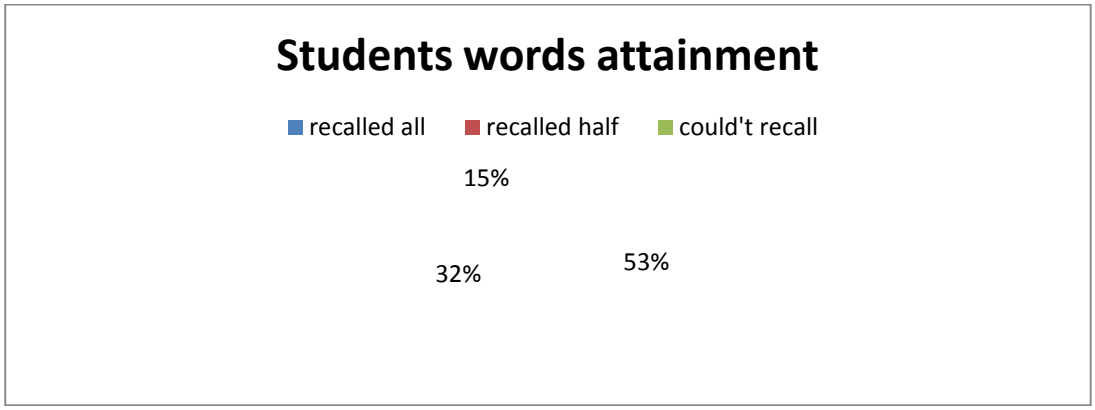


Pie chart 3.19 students' interst to the words in context

- **Step six:** Tasting students' ability to remember the words presented

Step six		
Recalled all the words	05	53%
Recalled half of them	03	32%
Couldn't recall them	02	15%

Table 3.23 students' attainment to new words



Pie chart 3.20 students' attainment to new words.

3.5.5 Interpretation of classroom practice

The classroom practice has drawn a clear result for the efficiency of VLS. Although time was not enough to apply all the learning strategies on learners, the visual imagery strategy showed how easy and efficient brain based learning is. Since this method of vocabulary teaching is based on memory for better attainment just like the other methods, it proves the efficiency of the other cognitive vocabulary learning strategies.

6.1 Limitations of the Study and Suggestions for Further Research

Undeniably, some inescapable limitations cropped up along the way;Even though our research has reached its intended aims putting more emphasis on more learning strategies was kind of complicated because of time restrictions. Moreover the time administrated for putting VLS into practice was not enough to generalize the result of the study. Additionally, In view of the fact that most of our participants were absents during our research, we presume that this affected our study. Finally, due to time restriction we couldn't apply most of the learning strategies with learners; we suggest adding much time for its implementation for further research.

Conclusion:

The primary aim of this chapter is to explore the different learningstrategies that are used by learners while studying vocabulary. Based on finding for the review of literature and results obtained from the practical part, it has been sustained that students rely on the visual aids such as draws, pictures, maps illustrations in addition to modern audio-visual materials to enrich their lexical repertoire. Moreover, findings of this study indicate that learning vocabulary in its context is easy for better vocabulary attainment

General conclusion

General conclusion

Communicating and expressing ideas fluently in the target language is the main aim of good, successful education . To communicate naturally , students need a good lexical store . Even though vocabulary is a sub-skill of language, it plays a vital role in language learning and teaching , developing vocabulary enhances communicative competence in L2 .

The central aim of this research is to facilitate the the task of vocabulary learning and teaching to middle school EFL learners , it investigates the role and the effect of Cognitive learning strategies on EFL learners and up to which degree this strategies can be effective .

In the field work, the educational setting of this work was Al MAAHED pro international company. Questionnaires were supplied to the students of the institute , with the intention to of examining the participants' VLS store . In other word, the study is desired to check if learners hold vocabulary learners hold any vocabulary learning strategies, if so what strategies do they hold, and are they conscious about their use .

Participants of this research are average users of English. The results obtained from learners' contribution in this research showed that the learners unconsciously hold few vocabulary learning strategies but they are unaware of their usage and value.

Based on findings of the experiments and the observation used in this research, it has been argued that students rely on the visual aids such as draws, pictures, maps illustrations. In addition to modern audio-visual materials to enrich their lexical store. Moreover, the results of this study indicated that learning vocabulary in its context and based on cognitive strategies make it easy for students to attain L2 vocabulary .

Finally, this work tries to give a clear picture about the cognitive vocabulary learning strategies and the advantages of implementing them in vocabulary instruction tasks .

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Appendixes

Appendix one

The Students' Questionnaire

Dear students

You are kindly requested to fill in this questionnaire to express your opinions and attitudes towards English learning in general, vocabulary learning in particular, and what vocabulary learning strategies you hold.

You are kindly requested to answer the following questionnaire. Please, tick (√) the appropriate box or boxes and make full statements whenever necessary

We thank you in advance for your collaboration.

Section One: Personal Information

- ❖ Gender male ☐ female ☐
- ❖ Age ☐
- ❖ Level 1st ☐ 2nd ☐ 3rd ☐ 4th ☐

❖ Level in English :

a- Weak ☐
b- Average ☐
c- Good ☐

❖ Do you consider your vocabulary enough to express your ideas ?

Yes ☐ No ☐

Section Two : Strategies of learning vocabulary

❖ I always try to add new vocabulary to my lexical luggage.

Yes ☐ No ☐

- I try to understand the meaning of the new word from its context

Yes ☐ No ☐

- When I find difficulty to understand the meaning of a word in a text I highlight it so as to look for its meaning later on .

Yes ☐ No ☐

- I use dictionary to grasp the meaning of difficult words .

Yes ☐ No ☐

- I prefer to learn new words through :

Texts ☐ pictures ☐ list of words ☐

Section three : The use of vocabulary learning strategies

- I learn a word (Memorize it) by drawing it instead of writing it meaning .

Yes ☐ No ☐

- Visual aids enables me to learn vocabulary easily.

Yes ☐ No ☐

- I use specific color to highlight difficult word to make it easy for me to remember it .

Yes ☐ No ☐

- I use mind map to make vocabulary learning (memorizing) easy for me .

Yes ☐ No ☐

- I use mind map to memories the words , its synonyms and antonyms .

Yes ☐ No ☐

- I chunck words to memorize them easly .

  Yes ☐ No

- I try to memorize a list of words by visualizing its location in my mind .

  Yes ☐ No ☐

- I use meaningless list to memorize words with the same rhyme. (three–tree).

  Yes ☐ No ☐

- I use words that have approximately the same pronunciation with my mother tongue to memorize it easily .

  Yes ☐ No ☐

Thank you very much for your collaboration

To our Parents …

Acknowledgment

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ABSTRACT

We can never overstate the power of words. It is one of the greatest tools that can be offered to students , not only in their levels of education , but in life. Teaching and learning vocabulary deals straightforwardly with vocabulary since the latter is the basic of the four language skills: speaking, writing, listening and reading. When students' vocabulary store is weak their attempt to use the language is will decreases, and the opposite. This research investigates the value of vocabulary in language learning. It aims at investigating and analyzing vocabulary learning problems encountered by EFL learners at middle school, and studies how human memory works and provides different cognitive learning strategies for better vocabulary attainment.

The educational setting in which this study takes place is Al Maahed pro international company. Our study was carried out through students' test which revealed students' learning strategies and their preferable way to improve their lexical knowledge.

The result obtained from students' test and experiments validates the efficiency of the Cognitive learning strategies mentioned on the review of the literature and this will help learners' to improve their lexical knowledge and facilitate language instruction for teachers.

List of Abbreviations

L2 : **Second language**

EFL : **English a foreign language**

LTM : **Long Term memory**

STM **Short Term Memory**

SM : **Sensory Memory**

CI : **Cognitive Instructions**

MCI : **Meta-cognitive Instructions**

VLS : **Vocabulary Learning Strategies**

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