

Investigating Memory Strategies Employed by the Students of Sudanese International Schools to Remember the New Vocabulary Words

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Abstract

The aim of the this study was to investigate the more frequent and less frequent memory strategies used by the Students of Sudanese international schools to remember the new words. A descriptive, analytic approach was adopted. The study sample included 100 students both female and male representing the sixth, seventh and eighth grade students. A questionnaire was used to collect the quantitative data. Findings revealed that repetition, studying the word's pronunciation and spelling, making an image of the word meaning and connecting the word to a personal experience are the most frequent memory strategies used by the Sudanese international schools students to remember the new words. Findings also indicated that making an image of the word's form and employing the new word in a sentence are the less frequent memory strategies utilized by the students of the international schools in Sudan to remember the new words.

Keywords: image, repetition, analytic, descriptive, quantitative data

المستخلص:

هدفت هذه الدراسة الى تقصي استراتيجيات التذكر الأكثر و الأقل استخداما التي يستخدمها طلاب المدارس العالمية السودانية لتذكر الكلمات الجديدة. تم استخدام منهج البحث الوصفي - التحليلي. تكونت عينة الدراسة من مائة طالب و طالبة يدرسون في المستويات: السادس ، و السابع ، و الثامن. حيث تم استخدام استبانة لجمع البيانات الكمية. أشارت نتائج الدراسة إلى أن التكرار ، ودراسة نطق و إملاء الكلمة ، و خلق صورة ذهنية للكلمة ، و ربط الكلمة بتجربة شخصية من الاستراتيجيات الأكثر شيوعا التي يستخدمها طلاب المدارس العالمية السودانية لتذكر الكلمات الجديدة. و قد أشارت نتائج الدراسة أيضا إلى خلق صورة ذهنية لشكل الكلمة ، و استخدام الكلمة في جملة مفيدة من استراتيجيات التذكر الأقل استخداما بواسطة طلاب المدارس العالمية السودانية لتذكر الكلمات الجديدة.

كلمات مفتاحية: صورة، تكرار، تحليلي، وصفي، معلومات كمية

INTRODUCTION

Research into language learning strategies (LLS) began to be a field of much interest for researchers in the 1970s. Since then, researchers have been much interested in the domain of second language acquisition (SLA) and cognitive psychology. Consequently, various learning strategies have been identified and several taxonomies of learning strategies have been suggested. Vocabulary is always considered as the core of language learning and teaching. The

pivotal role played by vocabulary in language learning is supported by Rubin (1987) who says: "Without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (Rubin, 1987, p. 111). This study does not aim at underestimating the significance of grammar in language learning, but it displays the real weight of vocabulary in both languages learning and teaching.

Similarly, Nation (2001) states that lexical knowledge is generally considered as a key element in language comprehension, and the number of known words is closely related to skillful language use. Thus, vocabulary is considered the basic building blocks of language.

It is true to say that the aforementioned valuable information is quite enough to stress the fundamental role that has been played by vocabulary in language learning compared to other language features. Generally, the current study is primarily devoted to investigating the most frequent and less frequent memory strategies used by the students of Sudanese international schools to memorize the new words. Being a teacher of English for more than 17 years, I have observed that most of the students do not memorize the new words when they have just learned them. So, this observation is one of the convincing reasons to carrying out this study. Actually, this study seeks to answer the following questions:

1-What are the most frequent memory strategies that are used by the Sudanese international schools students to remember the new words?

2-What are the less frequent memory strategies that are used by Sudanese international schools students to remember the new words?

Study Hypotheses

1-The Sudanese international school students are expected to more frequently memorize the new words by using strategies such as repetition, studying the word's pronunciation, studying the spelling of a word and relating a word to its synonyms and antonyms.

2- The memory strategies such as employing a new word in a sentence, relating a word to its coordinates and making an image about the word meaning are expected to be less frequently ones used by Sudanese international school students,

Literature Review

The literature reviewed in this study is divided into two parts: conceptual framework and review of previous related studies.

Part One: Conceptual Framework

• **Definition of Vocabulary** According to Oxford Advanced Learner's Dictionary (2013), two definitions are given to the term vocabulary. First, vocabulary is defined as all the words a person uses or knows. Second, it is defined as all the words of a particular language. Similarly, Hatch and Brown (1995) defined the term vocabulary as a set of words for a particular language used by individual speakers of that language. Based on Hatch and Brown's definition, the term vocabulary can be used in the sense of a single word, phrases, phrasal verbs and idioms.

• **Types of Vocabulary**

Vocabulary can be classified into two categories: general and technical. General vocabulary is considered the most frequent one because it is used in everyday speech. It does not directly associate with a particular content area. It includes most of the function and content words. Technical vocabulary, on the other hand, is restricted to a specific content area. For instance, words like fungus and hemorrhoids are expected to occur in the medical contexts more than those of economic or engineering ones.



In contrast, words such as carburetor and crankshaft are likely to appear in engineering texts more than that of medicine or economic ones. It is believed that vocabulary can be divided into listening vocabulary, writing vocabulary, reading vocabulary and speaking vocabulary.

Vocabulary Knowledge

As far as learning a foreign or a second language is concerned, knowing a word is associated with two prime fields: one has to do with linguistics, while the other has to do with psycholinguistics. With regard to the former, knowing a word including the lexical information relating to it, while the latter implies the manner via which information is processed and produced. It has been suggested that the scope of word's knowledge is associated with the knowledge of other language features. For instance, Schmitt (2000) argued that three different perspectives should be considered when handling vocabulary: how words are employed in contexts, how they are acquired and how they are moved from receptive to productive states

• **Students' Problems in Vocabulary Learning** Vocabulary always plays a fundamental role in language learning. It is considered the heart of language learning. That is, without having sufficient inventory of vocabulary, both EFL and ESL learners cannot communicate effectively. Thus, vocabulary knowledge is indispensable and it is prior to the knowledge of grammar. Despite the effectiveness of vocabulary, learners are encountered by some difficulties when learning it. Based on my own experience as an EFL teacher, learners experience a number of vocabulary problems. On top of these problems

are discovering the meaning, appropriate use of vocabulary, spelling and punctuation.

• **Definition of the Term Vocabulary Learning Strategies (VLS)** With regard to the concept of VLS, a number of definitions have been suggested by several researchers; however, only the most influential ones have been involved in the present study. Such definitions include those proposed by Schmitt (1997) and Marin's (2005). According to Schmitt (1997:203), vocabulary learning strategies 'is the process by which information is obtained, retrieved, stored and used'. But this definition sounds rather general in that it suggests that VLS can be observable or unobservable, conscious or unconscious.

In an attempt to provide a concrete definition, Marin (2005, p. 74) defined VLS as those conscious and unconscious, planned and unplanned steps and actions that L2 learners take to discover and consolidate the form, meaning and usage of words. Specifically speaking, Marin's (2005) definition proposes that vocabulary learning can be obtained via (1) conscious and unconscious approach; (2) previously planned or unplanned actions or steps; (3) discovery and consolidation of learned tasks; and (4) using words in the appropriate context. It is obvious that Marin's (2005) definition seems concrete in that it encompasses all the aspects of VLS reflected in the work of Schmitt (1997). Thus, in the current study, one of the major aims is to find decisive strategies that may help the Sudanese international schools students to memorize new vocabulary when they are once learned. In doing so, Marin's (2005) definition is considered the basis of the nature of memory strategies that will be under investigation.

Factors Affecting the Choice and Use of VLS

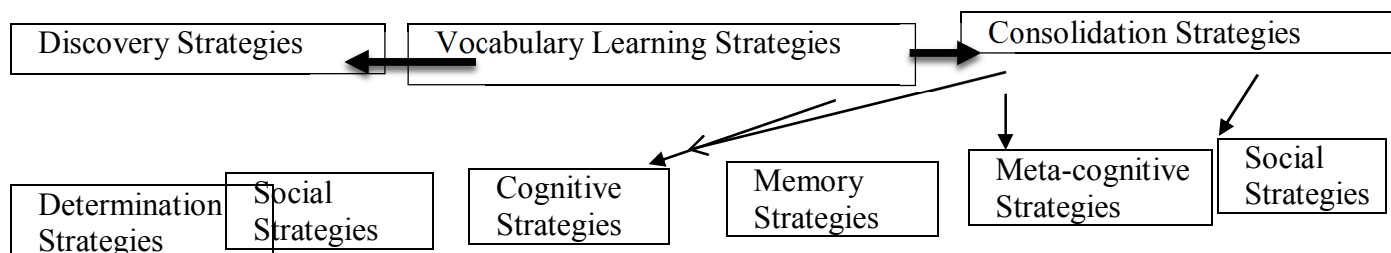
An increasing body of research suggests that the choice and use of VLS are affected by a wide range of factors. For instance, Oxford and Nyikos (1989) listed several factors associated with certain individual factors plus situational factors. Individual factors include language being learned, language teaching methods, and the level of language learning proficiency. On the other hand, situational factors include course type and study duration.

Consequently, certain individual factors (the student's native language, proficiency level and level of achievement) plus one situational factor (course type) will be taken into account in the present study. Based on what has been mentioned earlier, it seems essential to provide such a discussion because it may help in the explanation of why Sudanese international Schools students tend to use memory strategies more frequently or less frequently.

Taxonomy of Vocabulary Learning Strategies
A wide range of taxonomies concerning VLS has been proposed by several researchers; however, only those which are oriented to the current study will be involved. In doing so, a particular attention

is paid to Schmitt's (1997) taxonomy since the taxonomy for the present study is mainly based on it. This is besides Nation's taxonomy³ (2001). Schmitt (1997) categorized the vocabulary learning strategies into two types: the discovery strategies (utilized to discover the meaning of a new word) and the consolidation strategies (utilized to consolidate the meaning of a new word). The discovery strategies are further classified into determination strategies (which are used to discover the meaning of new words without recourse to somebody else), and social strategies (which are used when seeking other people's help in getting the meaning of new words). Additionally, the consolidation strategies are further classified into social strategies, cognitive strategies (entail the manipulation or transformation of the target language by learners), meta-cognitive strategies (involve conscious overview of learning process and making decision about planning, monitoring or evaluating the best way to study), and memory strategies (utilized to remember the new words when they are once learned). This taxonomy is illustrated below:

Figure 1: Schmitt's classification of vocabulary learning strategies



Source: Schmitt (1997, p.207)



Concerning Nation’s (2001) taxonomy, vocabulary learning strategies are divided into three main classes and each class contains a specific type of vocabulary learning strategies. These classes are represented in planning (choosing what to

Table 1: Nation’s (2001) taxonomy of VLS

focus on and when to focus on it), sources (finding information about words) and processes (establishing knowledge). The following table illustrates the type of strategies each class includes:

General Class of Strategies	Types of Strategies
Planning: Choosing what to focus on and when to focus on it.	Choosing words. Choosing the aspect of word knowledge. Choosing strategies-Planning repetition.
Sources: finding information about words.	Analyzing the word -Using context. Consulting a reference source in L1 or L2. Using parallels in L1 and L2.
Processes: establishing knowledge.	Noticing – Retrieving -Generating.

Source: Nation (2001, p.218)

On the other hand, consolidating the newly learned word is vital to learning vocabulary. Thus, some researchers such as Schmitt (2000) and Nation (1990) proposed some strategies for the remembrance of the new words. According to them, consolidation strategies include social, cognitive, memory, and meta-cognitive strategies. With regard to cognitive strategies, which are considered the most widespread strategy used by almost learners all over the world, O’Malley and Chamot (1990, p.8) claimed that “cognitive strategies are more directly related to individual learning tasks and entail direct manipulation or transformation of the learning materials”. Therefore, to use cognitive strategies effectively, learners need to repeat the verbal and written form of a word more and more. Memory strategies, on the other hands, involve the integration of the new knowledge with the previously learned one. According to Schmitt (1997),

memory strategies could be subcategorized as pictures/ imagery, related words, and word’s orthographical or phonological form. According to him, pictures are considered as paramount to remembering a new word because the learners can conceptualize the new word’s meaning. In the context of memorizing the new words, learners can use sense relation to link between what they already know and their newly learned words. Such a linking could be obtained via coordinating (goats or camels), using synonym (tough-strong), antonym (rude-polite) and scaling adjectives (small-medium-big –huge). Additionally, the orthographical or the phonological form of a word is indispensable in remembering words. In making use of such strategies, learners rely on noticing the spelling and pronunciation of the new lexical item. Additionally, learners can benefit from the (key- word method).



The utilization of such a method is bound by finding an L1 word or a phrase that is similar to an L2 word. Nevertheless, this method is reported to be the least frequently used one. Another strategy for consolidating the newly learned word is the meta-cognitive strategies. They involve watching English TV channels (e.g. movies, songs, and documentary), listening to English radio programs, reading English newspapers and magazines, or using computer programs. These strategies are fundamental in developing the learners' vocabulary due to their maximization of the learner's exposure to an L2. To sum up, it is clear that vocabulary has various definitions and types. Learners often encounter some difficulties when learning it because both of its use, memory and choice are affected by some factors. Thus, such complexities in vocabulary nature have urged researchers to conduct this study in order to help students learn the heart of a language-vocabulary. **Part Two:**

Review of Previous Studies Garri (2004) investigated the vocabulary learning strategies (discovery and consolidation) used by the third- year university students in the Sudan. He used a questionnaire. Results showed that students neither employed effective determination strategies to discover the meaning nor did they frequently use the strategies of making an image of the word's form to retain the meaning. Correspondingly, Gu and Johnson (1996) studied the VLS used by Chinese students. They used a questionnaire and a test to collect data. Findings revealed that the strategies of memorization and visual repetition negatively correlated with both students' vocabulary size and language proficiency. Schmitt (1997) assessed the

vocabulary learning strategies used by Japanese students. He used a questionnaire. Results revealed that strategies such as using the bilingual dictionary, guessing from context, asking classmates for the meaning, verbal repetition, written repetition, and saying new words aloud ranked the highest whereas strategies such as checking for L1 cognate and utilizing physical action ranked the lowest. Tassana-ngam (2004) investigated the effect of training on five vocabulary learning strategies at Thai University. She used two vocabulary tests; think-aloud protocol and an interview.

Findings revealed that learners of the experimental group outperformed those of the control one in using VLS. Moreover, findings indicated that strategies such relating the word to its coordinates, making an image of the word's form and employing the new word in a sentence ranked the lowest. To sum up, it is clear that all the studies reviewed above are closely related to the current study in terms of research topic, tools and findings. So, the researcher will follow the example of these studies in addressing memory strategies in the Sudanese context.

Materials and Methods

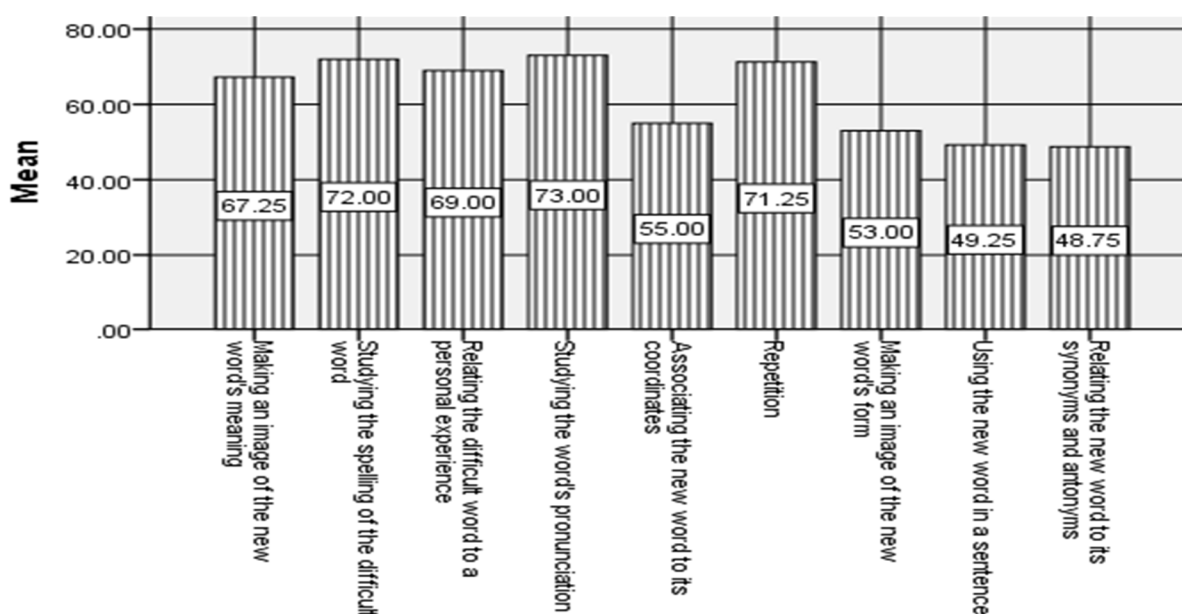
In the current study, the descriptive, analytic research design was adopted. The quantitative data were collected via a questionnaire. The questionnaire included nine strategies and was formulated in accordance with Likert 5-point Scale. Thus, five choices were given. Participants were asked to choose one of the five choices (always, often, sometimes, rarely, never) by ticking the box that suits their actual use of the memory strategies. The participants of the study were the students of Sudanese international schools.

They were 100 students both males and females representing 20 schools. They were studying in various grades: 6,7and 8. Their ages were between 14 –16. They were all studying English as a second language (Cambridge and Oxford curricula). After ensuring the validity thro and reliability of the questionnaire, data

collection started. The questionnaire was administered at the schools. It took about 60 minutes. After finishing answering the questionnaire questions, the scripts were coded and stylistically analyzed.

Analysis of the Questionnaire Data

Figure 2: Memory Strategies



1- Make an image about the new word's meaning

Figure 3: Make an image about the new word's meaning

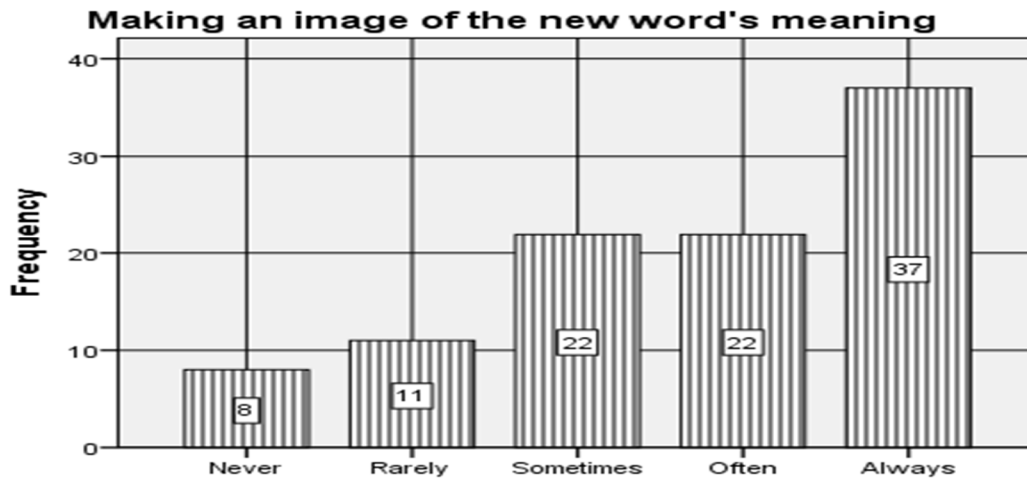
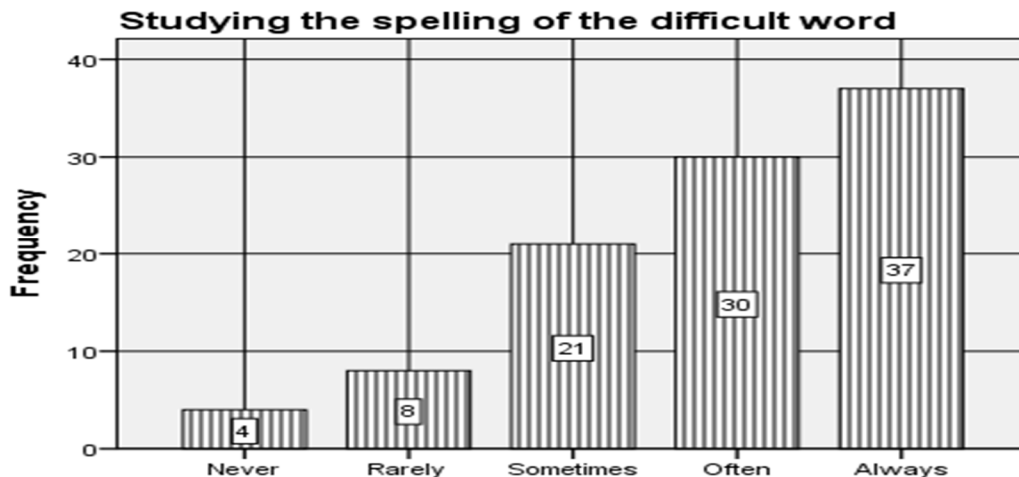


Figure 3 displays the respondents' relatively high usage of memorizing the word via making an image of its meaning. It receives a mean index of (67.25) with a mode of always. It is clear that 37 respondents have reported that they always use this strategy, 22 often use it, 22 use it sometimes, 11 use it rarely and 8 never use it. The slight usage of this strategy is supported by the fact that learning a language is a process of mental activity in that a language is structured inventory in the mind of the human being (Evans and Green, 2006).

Figure 4: Study the spelling of the difficult word



Memorizing words via studying their spelling is more commonly used by the respondents. It has scored a relatively high mean index of (72) points with a mode of

always. As shown in the figure above, 37 respondents use it always, 30 often use it, 21 use it sometimes, 8 use it rarely and 4

never use it. This high frequent usage of such a strategy is due to the fact that learning a language is mainly based on indoctrination which originally substantiates the memorization of its alphabets.

3- Relating the difficult word to a personal experience

Figure 5: Relating the Difficult Word to a Personal Experience

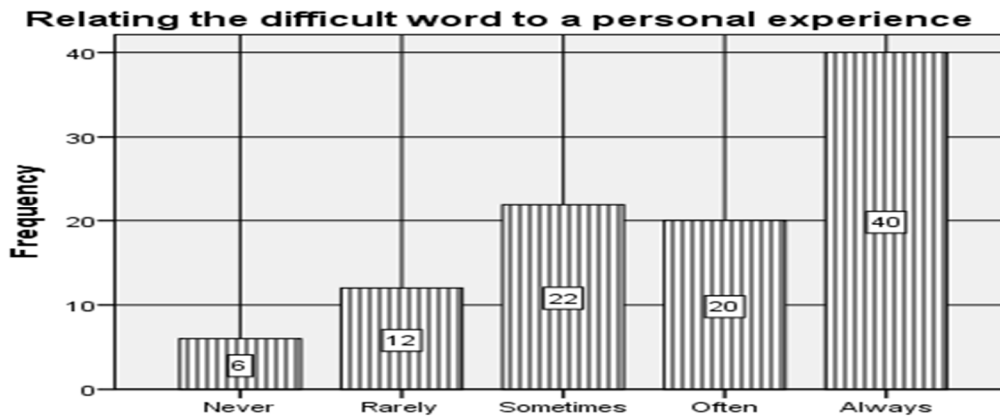
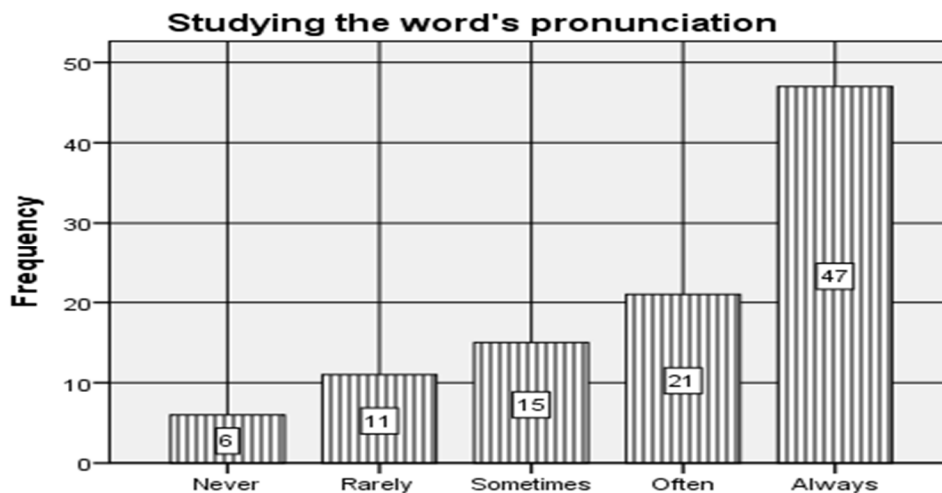


Figure5 indicates that the respondents memorize a difficult word via relating it to a personal experience more frequently. It has obtained a mean index of (69) with a mode of always. It is clear that 40 respondents always use it, 20 often use it, 22 use it sometimes, 12 rarely use it and 6 never use

4- Studying the word's pronunciation

Figure 6: Studying the word's pronunciation



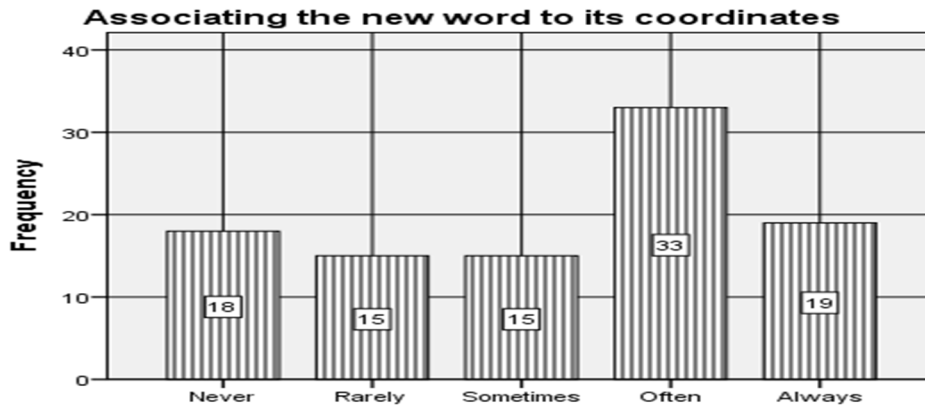
it. This relatively high usage of this strategy is explained by the fact that learning a new language via certain educational instances is useful because it consolidates the materials being taught and hence facilitates its recalling.

Memorizing the new word by studying their pronunciation has received a relatively high mean index of (73) points. Figure 6 demonstrates that 47 respondents always it, 21 often use it, 15 use it sometimes, 11 use it rarely and 6 never use it. This relatively high

rating is explained by the fact that pronunciation, repetition and spelling are the dominant strategies that should accompany the process of learning a language; they are indispensable and inseparable when learning or instructing a foreign language.

5- Associate the new word with its coordinates

Figure 7: Associate the new word with its coordinates



Remembering words via associating them with their coordinates has received a moderate mean index of (55) points. Figure 7 demonstrates that 33 respondents often use it, 19 always use it, 15 sue it sometimes, another 15 use it rarely and 18 never used it. The low rating of this strategy is not a

surprise. Based on my own experience, the vast majority of EFL teachers may not connect the new vocabulary with their coordinates when teaching it. Thus, most of the learners are prevented from making use of such a strategy.

6-Repeating the difficult word many times so as to memorize it

Figure 8: Repeating the difficult word many times so as to memorize it

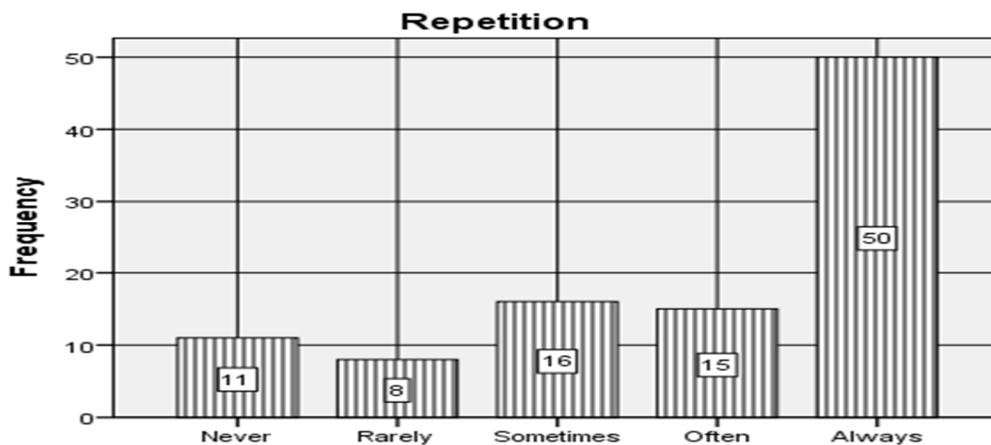
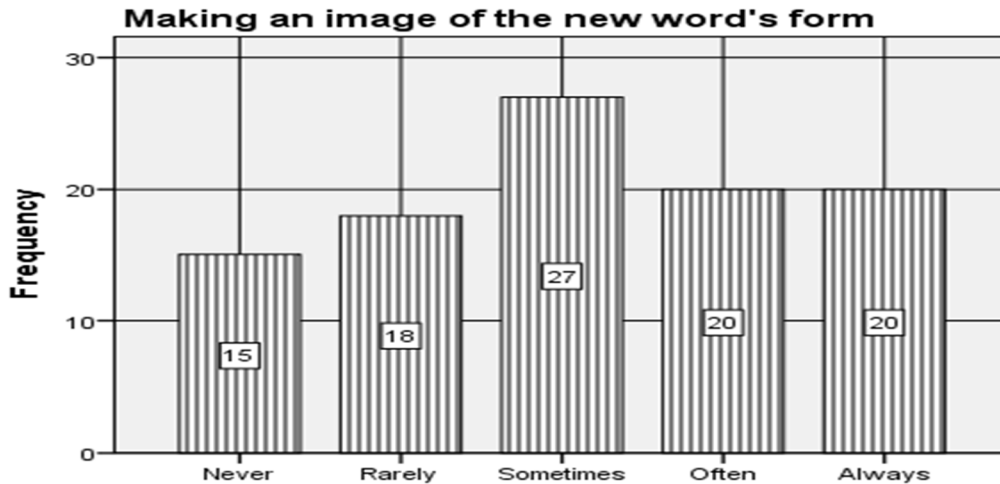


Figure 8 shows that half of the respondents always use this strategy to memorize the difficult words, 15 often use it, 16 use it sometimes, 9 rarely use it and 11 never use it

Generally, this strategy has received a relatively high mean score of (71.25). This is because learning a foreign language substantiates the repetition of its words.

7- Make an image of the new word's form

Figure 9: Make an image of the new word's form

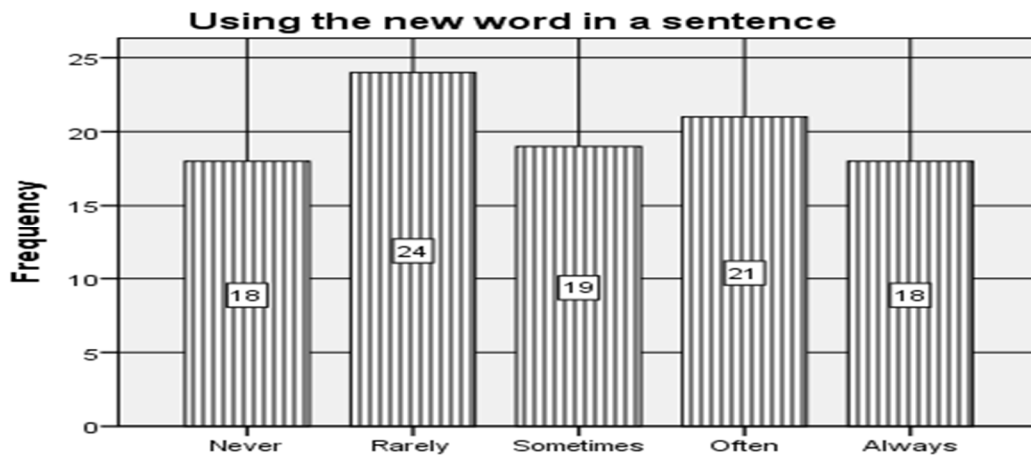


Memorizing the new word via making an image of it's from is reported to be moderately utilized by the respondents. That is, it receives a mean score of (53) points with a mode of 'sometimes'. As shown in the figure above, 27 respondents use it

sometimes, 20 often use it, another 20 always use it, 18 rarely use it and 15 never use it. This moderate usage of this strategy reflects that the syllabus might not include sufficient strategies for learning vocabulary.

8- Using the new word in a sentence

Figure 10: Using the new word in a sentence

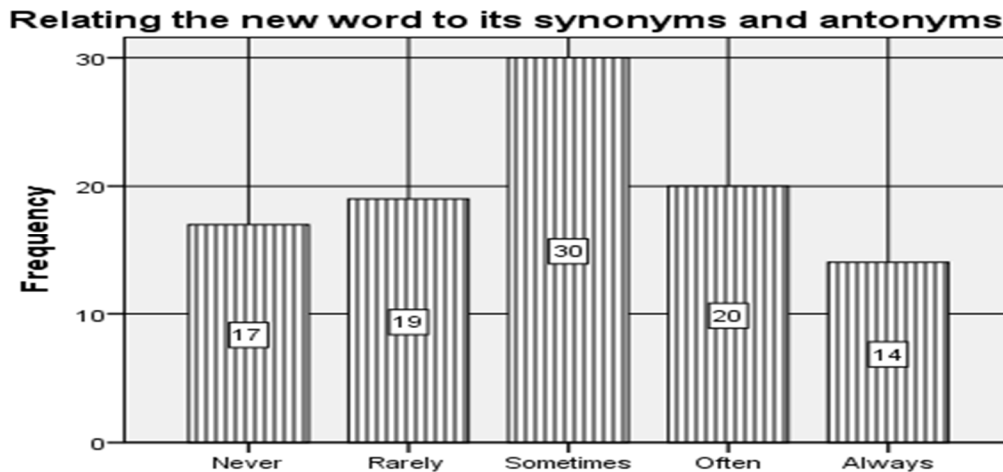


Respondents' reported usage of contextualizing new words is quite low. It has received a mean index of (49.25) points with a mode of rarely. It is obvious that 24 respondents have reported their rarity of

utilizing such a strategy, 18 have reported that they always use it, 21 have reported that they often use it, 19 have reported that they use it sometimes and only 18 have never used it before.

9- Relating the new word to its synonyms and antonyms

Figure 11: Relating the new word to its synonyms and antonyms



Respondents' reported utilization of relating the difficult word to its synonyms and antonyms to remember it is quite low. It has received a mean score of (48.75) points with a mode of sometimes. As shown in figure 11 respondents are reported to use it sometimes, 20 are reported to often use it, 14 are reported to always use it, 19 rarely use it and 17 never use it.

Discussion of Results and Verification of Study Hypotheses

This study aims at investigating the memory strategies that are used less or more frequently by the Sudanese international schools students to memorize the new words. It also seeks to confirm the following hypotheses: 1- The Sudanese international school students are expected to memorize

the new words by frequently using strategies such as repetition, studying the word's pronunciation, studying the spelling of a word and relating a word to its synonyms and antonyms. 2- The memory strategies such as employing a new word in a sentence, relating a word to its coordinates and making an image about the word meaning are expected to be less frequently used by Sudanese international school students,

With regard to the first hypothesis
(The Sudanese international school students are expected to frequently memorize the new words by using strategies such as repetition, studying the word's pronunciation and studying the spelling of a word),



The results obtained from the questionnaire have revealed that the most frequently memory strategies used by Sudanese international schools students are (in descending order) studying the word's pronunciation (73) points, studying the spelling of the word (72) points, repetition (71.25)

Points and making an image of the word meaning (67.25 points).

A powerful interpretation for

This frequent use of the first three strategies is that all these strategies are indispensable and inseparable when learning a foreign language. In contrast, the frequent use of the strategy making

an image of the word could be attributed to that learning a language is a mental process. Similar results are reached by Gu and Johnson (1996) and Schmitt (1997). This also confirms O'Malley and Chamot's (1990) suggestion that these strategies are so deeply rooted in learners' minds that learners resist giving them up to utilize other ones. On the other hand, the

Findings The more frequent memory strategies utilized by the students of the international schools in Sudan to remember the new words include:

- 1- Studying the word's pronunciation
- 2 - Studying the spelling of the word
- 3- Repetition
- 4- Making an image of the word meaning
- 5- Connecting the word to a personal experience

The less frequent memory strategies utilized by the students of the international schools in Sudan to remember the new words include:

- 1- Relating the word to its coordinates
- 2- Making an image of the word's form
- 3- Employing the new word in a sentence

Conclusion The primary objective of the

relative high use of the strategy- connecting the word to a personal experience (69 points)- is explained by the fact that the EFL learners are not in a regular and varied contact with the target language and its native speakers. With regard to the second hypothesis

(The memory strategies such as employing a new word in a sentence, relating a word to its coordinates and making an image about the word meaning are expected to be less frequently used by Sudanese international school students),

the results obtained from the questionnaire have revealed that memory strategies such as relating the word to its coordinates, making an image of the word's form and employing the new word in a sentence have ranked the lowest. One possible reason for this low rating is that students might believe that these strategies are useless for consolidating the memorization of new words. This result is congruent with the findings of Tassana-ngam (2004) and Garri (2004).

current study is to investigate the more frequent and less frequent memory strategies that are utilized by the students of the international schools in Sudan to remember the new words. The findings have revealed that

five memory strategies are frequently used whereas only

three are less frequently used. It should be emphasized that vocabulary memorization is fundamental to learning a language. So, teachers have to search for extra memory strategies so as to assist their learners recall new vocabulary. Furthermore, learners should be trained on how to make the maximum use of memory strategies.



عمادة البحث العلمي
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