Impact of Using Pictures on English Vocabulary Retention and Recall
by Primary Stage Learners in Al-Mikhwah Province

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Abstract: this study aimed to discover the impact of using pictures on English vocabulary retention and recall by primary stage students. The participants of this study included thirty-six male students with an average age of 11 from an elementary school in Al-Mikhwah province, Saudi Arabia. They were randomly divided into two homogenous groups: a semi-experimental group which was taught the target words with visual aids, using pictures, and a control group which was taught the target words traditionally through translation. Both groups were taught thirty English words during two sessions. All participants did a preliminary test before the treatment to assign the target words to be taught in the sessions. They also did three similar tests: a pre-test to make sure that the two groups are homogenous, and two post-tests, immediate and delayed, to measure participants' ability of vocabulary retention and recall immediately after the treatment and after two weeks from the treatment. The results revealed that the semi-experimental group participants scored higher marks than the control group participants in both the immediate and delayed post-tests. That is, English vocabulary meanings can be recalled better when they are taught by using pictures rather than by translation method. According to these results, the researcher recommends that pictures should be exploited by teachers in teaching vocabulary for primary stage learners.

Keywords: Teaching vocabulary, using pictures, recall, retention, primary stage learners.

أثر استخدام الصور على تخزين وتذكر مفردات اللغة الإنجليزية
لدى طلاب المرحلة الابتدائية في محافظة المخواة

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الملخص: هدفت هذه الدراسة لاكتشاف أثر استخدام الصور على تخزين وتذكر مفردات اللغة الانجليزية لدى طلاب المرحلة الابتدائية. شملت عينة الدراسة 36 طالبا حيث كان متوسط أعمارهم 11 سنة، وجميعهم من مدرسة ابتدائية في محافظة المخواة في المملكة العربية السعودية. وزع أفراد العينة عشوائيا إلى مجموعتين متماثلتين: مجموعة تجريبية والتي تلقت تعليم المفردات بصريا (باستخدام الصور)، ومجموعة ضابطة والتي تلقت تعليم المفردات تقليديا (باستخدام الترجمة). تم تدريس كلا المجموعتين 30 كلمة إنجليزية خلال جلستين. أنجز جميع أفراد المجموعتين اختبارا مبدئيا قبل بدء المعالجة وذلك لتحديد الكلمات المستهدفة ليتم تدريسها في الجلسات. كما أنجزوا أيضا ثلاث اختبارات متماثلة: اختبارا قبليا للتأكد من تماثل المجموعتين، واختبارين، فوري ومؤجل؛ لقياس قدرة أفراد المجموعتين على تخزين وتذكر المفردات مباشرة بعد المعالجة وأيضا بعد مرور أسبوعين من المعالجة. أظهرت النتائج أن أفراد المجموعة التجريبية سجلوا درجات أعلى من أفراد المجموعة الضابطة في كلا الاختبارين البعدي الفوري والبعدي المؤجل. أي أنه يمكن تذكر مفردات اللغة الإنجليزية أفضل عندما تدرس عن طريق استخدام الصور بدلا من استخدام الترجمة. ووفقا لهذه النتائج فإن الباحث يوصي المعلمين باستغلال الصور في تدريس مفردات اللغة الإنجليزية لطلاب المرحلة الابتدائية.

الكلمات المفتاحية: تدريس المفردات، استخدام الصور، تذكر، استبقاء، طلاب المرحلة الابتدائية.

1. Introduction

In the history of English language teaching and learning, vocabulary has been neglected for a long time (Komacheli and Khodareza, 2012, p. 134). It was given a little interest in curricula and language teaching programs for the sake of language grammar and some other aspects of language (Amiryousefi and Dastjerdi, 2010, p. 89). However, more recently, vocabulary has gained a lot of consideration and interest in the field of language pedagogy. It is realized by researchers and educators that vocabulary has become one of the most important issues of learning a language and is worthy of importance and investigation (Zahedi and Abdi, 2012, p. 2265).

There is an agreement among many language specialists and educators that vocabulary knowledge has become an important factor to achieve a higher proficiency level of a foreign language. According to Zahedi and Abdi (2012), "one of the components to master English as a foreign language is vocabulary mastery" (p. 2264). When reviewing the literature of vocabulary importance, the role of vocabulary appears in many areas and different situations in foreign language learning. For instance, vocabulary is an important factor for communication, reading comprehension and writing. Thus, "teaching foreign language vocabulary is an important issue" when formal education is concerned (Rokni and Karimi, 2013, p. 236). It is of prime importance to teach learners sufficient number of words especially in their early stages of learning a foreign language. Miller (2011) argued that "even in preschool and the primary graders, educators recognize the value of the acquisition of new words when they witness the deleterious effects a dearth of vocabulary can initiate" (p. 36).

Many teaching methods and techniques are used to teach new words of second and foreign languages inside classroom. One of the ancient and easy methods of teaching vocabulary is the Grammar-Translation Method. By this method, learners are supposed to acquire new words through bilingual word lists; thus, an important reference tool is the use of bilingual dictionaries (Al-Nassir, 2012, p. 12). Teaching and learning new words through translation might have the advantage of being easy and saving time and effort. However, not all teachers are always proficient in the first language to provide the appropriate translation (Schmitt, 2000, cited in Al-Nassir, 2012, p. 13).

Another way of teaching foreign language words is by using memory strategies which has been widely accepted over the last three decades. In her study, Oxfords (1990), as cited in Zahedi and Abdi (2012), classified memory strategies into ten sub-categories including using imagery (i.e. pictures or images) (p. 2266). Memory strategies are considered to be useful in vocabulary acquisition in general and in vocabulary retention and recall in particular. According to Nation (2004), "memory strategies, one kind of the language learning strategies, are considered vital in vocabulary teaching" (p. 159). They could simplify vocabulary learning and promote a long-term retention of words (Zahedi and Abdi, 2012, p. 2265).

Presenting new vocabulary by using pictures has been a basic principle in many methods in TESL and TEFL (Richards and Rodgers, 2001, cited in Zarei and Salimi, 2012, p. 47). Pictures, as one type of memory strategies, play a significant role in vocabulary retention and recall. Many studies and experiments showed that pictures can be recalled better than words. When new foreign language words are introduced with the relevant pictures, then those items will be stored in long-term memory (Erfani, 2012, p. 166). So, this enables foreign language learners to evoke words easily during language productive processes (e.g. speaking and writing).

1.1 Statement of the Problem

Throughout the researcher's experience in the primary education, students almost suffer from forgetting words that are taught to them. During the learning process, students prove that they have learnt the new English vocabulary taught to them, however, they show lack of retaining the target words after a short period of time. Later, this might be a big problem if the issue is not given any interest by teachers and also by learners themselves. Moreover, forgetting concepts and words causes lack of the previous linguistic knowledge of the learner. Consequently, the learner may find more difficulty in acquiring complex language input that depends on the interaction with the previous knowledge. So, it is of high importance to seek for an effective technique for solving this problem.

Language researchers have been investigating to find a way to increase learners' ability to retain and recall foreign language words for long time. Although several studies revealed that there is a positive relationship between recall and retention levels and the use of pictures, few of them were conducted on elementary stage learners (Pawar, 2011, p. 2). So, this important population is still worthy of investigation and research. This study will attempt to discover the impact of using pictures on vocabulary retention and recall by primary stage learners.

1.2 Research Questions

The main purpose of this study, therefore, is to discover the impact of pictorial method, as compared to the translation method, on vocabulary retention and recall by primary stage learners in Almikhwah province. Specifically, this study aimed to answer the following questions:

1- Is there a significant difference between the scores means of the two groups' participants on the retention and recall of the English vocabulary immediate post-test?

2- Is there a significant difference between the scores means of the two groups' participants on the retention and recall of the English vocabulary delayed post-test?

1.3 Research Hypotheses

The researcher proposes the following hypotheses:

1- There is a significant difference between the scores means of the two groups' participants on the retention and recall of the English vocabulary immediate post-test for the sake of the semi-experimental group's participants.

2- There is a significant difference between the scores means of the two groups' participants on the retention and recall of the English vocabulary delayed post-test for the sake of the semi-experimental group's participants.

1.4 Research Significance

It was claimed, by Zahedi and Abdi (2012), that pictures might be the most strong technique to aid recall (p. 2266), and, by Al Nasser (2012), that pictures can be more effective than translation in retaining and recalling vocabulary meanings (p. 62). If this is applicable to primary school learners, the results of this study will provide important hints to the designers of instructional materials and teachers for their important contributions toward the instruction of those particular learners. This study may provide a good solution for learners who find difficulty in retaining and recalling words. The study results may also be used by language researchers for further research in the field.

2. Background and Literature Review

The issue of the interrelationship between pictures, concepts and memory was dated back to many centuries ago. In the 12th century, Thomas Aquinas said: "Man's mind cannot understand thoughts without images of them" (cited in Miller, 2011, p. 31). Another famous statement that revealed the role of imagery for recognition was Albert Einstein's "If I can't picture it, I can't understand it" (cited in http://datavirtualizer.com/if-i-cant-picture-it-i-cant-understand-it/). Later, psychologists and researchers have been continuing to find more explanations to this issue.

The idea of introducing foreign language vocabulary with the help of using pictures has been derived from theoretical bases. Throughout a long historical debate, different views and explanations of how our cognitive abilities process pictures and words were introduced. One of the famous theories that explains the relationship between pictures and words as stimuli and memory was Allan Paivio's Dual-Coding Theory (DCT) which was introduced in 1971. According to Paivio (2006), our cognition consists of two systems: a verbal system and nonverbal system. The verbal system is responsible for language whereas nonverbal (imagery) system is responsible for images, objects and events. These two systems include representational units that are stimulated when we understand, manipulate, or only think about things or words. There is a strong relationship between language system and imagery system, as a person may think of the image of a "horse"; for example, and then explain it in words, or hear or read a word and then create a mental image of that word (p. 3).

Many methods and techniques are used to explain foreign language words inside classroom. These methods and techniques may include wordlists, keyword method, translation into the mother tongue, using pictures, guessing meaning from context, vocabulary notebooks, games, songs, stories, etc. Although many of these strategies have a positive impact on vocabulary acquisition, not all of them can be appropriate for all learners and all learning language levels. Especially in the early stages of learning a foreign language and when learners are still young children, new words might almost be taught by using pictures, images, and flashcards, or by translation into mother tongue. This may be because "children generally are not consciously interested in language for its own sake and usually tend to direct their interest towards things that are easy for them to understand" (Klasone, 2013, p. 27). Moreover, the previous knowledge of those learners doesn't include sufficient vocabulary of the target language to enable them learn new words from context or use other techniques such as word lists. So, using pictures and translation into mother tongue might be the easiest ways to teach a foreign language word for those particular learners.

Many studies revealed that pictures can be recalled better than words. Paivio and other scholars did many experiments in order to discover learners' ability of recognizing and recalling words and pictures. In one experiment, Paivio and Csapo (1969), as cited in Hensley (1973), introduced pictures, concrete nouns, and abstract nouns to adult subjects. The three subject groups saw the target words and pictures in two different sessions: a high (5-3 items/sec) and low (2 items/sec) rate. The experimenters found that there were small recognition and recall differences between groups at the high rate session because the time was limited for memorizing the target words and pictures. At the low rate session, it was found that pictures were recognized and recalled more than concrete words, and concrete words were recognized and recalled more than abstract words (p. 5).

Another study that was done by Sampson (1970) gave additional support to the previous finding. Sampson investigated the differences between pictures versus words in free recall. In the experiment, picture stimuli were introduced to adult subjects on some trials and words on others. After the initial presentation, the adults were tested by roughly drawing the pictures that had been viewed, and writing down the words. Sampson concluded that pictures recorded better recall than words.

In fact, the reason behind why pictures receive its superiority over words has not been found yet. However, different interpretations were provided by famous scholars. One of these explanations was introduced by Paivio who assumed that pictures stimuli can be dually encoded; they generate image and verbal (linguistic) codes, whereas words only generate a verbal code (Wikipedia, 2015). Another explanation was that pictures can benefit from deeper semantic processing than words do (Craik and Lochart, 1972, cited in Hockley, 2008, p. 1351).

Throughout the long historical debate of investigating the interrelationship between pictures, words and memory, a frequent finding is that pictures can be recalled better than words. Similarly, this

phenomenon actually has been noticed, by many researchers, when visual aids in general and using pictures in particular are used for presenting and teaching educational materials. Many studies showed that there is a positive relationship between using visual aids such as pictures and information retention and recall levels.

In his study, Hampton (1997) investigated the impact of visual aids on information retention and recall. The population of the study included human service providers who work with psychiatric populations. They attended a seminar on managing psychiatric emergencies; specifically, in dealing with aggressive behavior. The subjects were divided into an experimental group which received the material with the help of visual aids, and a control group which received the material without visual aids. Pre and post-tests were used to determine levels of the material retention and recall of participants. The results showed that the use of visual aids for presenting a managing psychiatric emergencies material could increase the levels of information retention and recall.

Regarding first language vocabulary learning, new words can also be presented with the help of using pictures to explain their meanings. The question is that: Is introducing words with pictures for the purpose of recalling better than using words alone or pictures alone? This question was investigated through a study done by Pawar (2011). In his study, 100 fifth-grade students from California participated in an Internet-based lesson on the human muscular system. Pre and post-tests were used to measure retention and transfer levels. The study findings revealed that words and pictures increased the retention and transfer of words in elementary students as compared to words alone or pictures alone.

On the other hand, meaning of foreign language vocabulary can also be explained through using pictures. In a comparative study, Al-Nassir (2012) investigated learners' vocabulary retention and recall through using two methods, the translation method and the pictorial method (i.e. using pictures). The study subjects included 36 young adult female students with an average age of 17 from a secondary school in Saudi Arabia. They were divided into an experimental group which was taught the target words visually, and a control group which was taught the words traditionally (i.e. through translation). Three tests were used in this study. A multiple-choice preliminary test was used in order to determine the most 45 unknown words out of 80 words to be taught in three sessions (15 words each). Each session was followed by an immediate test to assess the subjects' ability to retain and recall the target words at the session. The same immediate test was used as a delayed post-test to assess the subjects' ability to retain and recall the target words after 4 days from the treatment. The results showed that the experimental group's participants recalled the target words better than those in the control group. That is, meaning of word is remembered better when it is introduced by picture rather than by the Arabic word form.

Many studies that found the picture superiority effect, including Al-Nassir's study, focused on adult learners. As it was mentioned above, Al-Nassir performed her study with female students at a secondary school in Saudi Arabia. The two variables (age and gender) in her study will be taken into

consideration in the current investigation. The researcher will attempt to investigate English words retention and recall through using the same methods of teaching vocabulary applied in Al-Nassir's study (i.e. translation versus using pictures). The participants of the current study are fifth-grade male learners with an average age of 11 years. Almost the same method and instruments of Al-Nasser's study will be used in the current research. However, some modifications in tests design and content will be added to fit the research sample. For example, in the immediate and delayed post-tests in Al-Nassir's study, learners were asked to write in English the meanings of the given Arabic words for the control group. On the other hand, the learners of the experimental group were asked to write in English the relevant words of the given pictures. In the current study, the learners are asked to choose from multiple-choice answers. This is because writing skill might be a difficult task for learners at this particular stage. Moreover, the period of time allotted between the treatment and the delayed post-test was 4 days in Al-Nassir's study, whereas in the current experiment two weeks will be assigned as a period of time between the treatment and the delayed post-test. This is because the recall factor in the current investigation might be more clearer to be measured than in Al-Nassir's study. For more details about the methodology of the current research, see the next chapter.

3. Methodology

3.1 Instrumentation

The approach used in this study is that of a semi experimental research. The researcher used this particular approach because it matches with the nature of the research questions and its main purpose and aim. The study community was divided into two groups: an experimental group and a control group. Both groups were exposed to the pre-test to ensure their homogeneity. Then, the experimental group was subject to the independent variable which is using pictures in order to teach the participants the target words. Whereas, the control group was taught the words traditionally (i.e. through translation). Then, in order to measure the dependent variable which is retaining and recalling of English vocabulary, the post-test was distributed twice: as an immediate post-test after the treatment and as a delayed post-test after two weeks from the treatment. Finally, participants' scores of the two groups were compared and analyzed to answer the research questions and to find out to what extent the hypotheses are true.

In this study, a Power Point presentation has been prepared to introduce the target words for both groups. The presentation includes 30 slides and lasts for about 30 minutes. Each slide contains the target English word and its relevant picture for the experimental group, and the English word and its equivalent Arabic word for the control group. While presenting the slides, the English word appears first and the researcher pronounces it twice and then the meaning, either a picture or an Arabic word, comes later. The presentation is shown in two sessions (15 minutes each) with a break time of 15 minutes in between. All the target English words are from "We Can" syllabus which has been edited in 2014 / 2015 A.D..

Before the participants have the treatment, a preliminary test has been distributed in order to choose the most 30 unknown words to be taught and examined in the immediate and delayed post-tests. The test contains 40 English words which were formed in multiple-choice questions. Each word is introduced in English and participants are asked to give its meaning by selecting only one answer from four Arabic-word choices given. The time allotted for this test is 40 minutes.

The main test prepared for this study is called the achievement test which is used as:

1- A pre-test to make sure that the two groups are homogenous.

2- An immediate post-test to measure the impact of using pictures on vocabulary retention and recall immediately after the treatment.

3- A delayed post-test to measure the impact of using pictures on vocabulary retention and recall after two weeks from the treatment.

The test is adapted from Al-Nassir (2012). Some modifications are added to fit the study sample such as words and the way of answering questions. In each question, an Arabic word is given for the control group, and a picture is given for the experimental group. Learners are asked to choose the correct meaning from four multiple choices. One mark is assigned for the correct answer and zero for the wrong one.

After designing the test, the researcher investigated its reliability and validity through applying the test on the pilot study sample (n= 27) by using the following procedures:

A. Face Validity:

The test is revised by three specialist referees to give their opinions according to the questions validity, pictures and Arabic words agreement to the English words, questions clarity and accuracy, and suggestions for modifications.

After the referees had revised the test, they all agreed that the pictures and Arabic words are clear and match with the English words, and all the questions are easy to be understood and match with the main goal of the study.

B. Internal Validity

The achievement test is applied on the pilot study sample's participants in order to calculate the test scores' internal validity by using Pearson Correlation Coefficient. This is done by calculating the correlation relationship between each single question from the test and the total score of the test. The researcher used the Correlation Coefficient Point Bisererial to perform this procedure as shown in the following table:

Table (1) The Test Questions Correlation Coefficient with the Total Score of the Test

Question No.	1	2	3	4	5	6	7	8
Correlation Coefficient	0.542	0.657	0.426	0.381	0.459	0.434	0.395	0.512
Question No.	9	10	11	12	13	14	15	16
Correlation Coefficient	0.491	0.572	0.429	0.573	0.480	0.524	0.636	0.525
Question No.	17	18	19	20	21	22	23	24
Correlation Coefficient	0.637	0.414	0.571	0.570	0.629	0.497	0.542	0.657
Question No.	25	26	27	28	29	30		
Correlation Coefficient	0.541	0.451	0.491	0.573	0.435	0.514		

It is clear from the results of the table above that the correlation coefficient values between test questions and the test total score range between 0.381 and 0.657 at significance level of 0.05 and 0.01. That is, the test is valid to be implemented on the main study sample.

C. Reliability

The test reliability is calculated by using Cronbachs Alpha equation. The result is 0.634. This high value indicates that the test is reliable to be used as a tool in this study.

The time allotted for the test is determined according to the following equation:

Time = student's fastest answer time + student's slowest answer time / 2

Time = 30 min + 50 min / 2

Time = 40 minutes

The time required for the test is 40 minutes.

To make sure that the two groups are homogenous before starting the treatment, the achievement test has been applied on the two groups as a pre-test. Then, the test results have been statistically analyzed by using the SPSS program and the Independent-Samples t-test to identify the significant differences between the mean scores of the participants of both groups. The results were as shown in the following table:

Table (2) The Descriptive Analysis of the Pre-Test Result of Participants of Both Groups

Groups	No.	mean	Std. Deviation	Levene's Test for Equality of Variances		df	T	Sig.
				F	Sig.			
Control	18	18.17	1.886	0.041	0.082	34	0.622	No Sig.
Experimental	18	18	1.879					

Note: df = degree of freedom sig. = significance level T = value of t-test

From table 2, it is clear that there is no significant difference between the two groups. The value of t is 0.622 which is not statistically significant; that is, the two groups are equal in the pre-test. It is also clear from the table that the value of F is 0.041 at sig. 0.082 which is bigger than 0.05. It is concluded that the two groups are homogenous in their mean scores in the pre-test.

The current study included the statistics of means, standard deviations, Correlation Coefficient Point Bisererial, Cronbachs Alpha Equation to measure the tool reliability, Independent-Samples t-test, and ANOVA program to find ETA coefficient value to discover the impact of using pictures on vocabulary meanings retention and recall.

3.2 Sampling:

In this study, thirty six male students from Khalid bin Al-Waleed Elementary School in Al-Mikhwah Educational Zone were chosen to form the main study sample. Since the students are in two classes (A and B), the two classes were divided randomly into two groups. Group (A) represented the experimental group and group (B) represented the control group. Each group included 18 students. The following table clarifies the distribution of the two groups:

Table (3) The Distribution of The Main Study Sample

School	Group	Students No.
Khalid bin Al-Waleed	Experimental	18
	Control	18
		36

Moreover, twenty seven students from the fifth primary grade from Abdurrahman bin Awf School, Al-Qunfudhah Educational Zone, Saudi Arabia, were chosen to represent the pilot study. This sample was for the purpose of examining the validity and reliability of the achievement test.

4. Results and Discussion

The researcher used the SPSS program to identify the significant differences between the mean scores of both groups' participants on the immediate and delayed post-tests. For the purpose of answering the first question of the research, an Independent-Samples t-test was run. The data given in Table 4 illustrates the descriptive statistics of the immediate post-test for both groups.

Table (4) Control and Experimental Groups' Performance in the Immediate Post-test

Group	No.	mean	Std. Deviation	df	T	Sig.
Control	18	23.06	0.725	34	12.417	0.000
Experimental	18	28.11	1.568			

Obviously, It is clear from the table that the t value (12.417) is significant at α 0.01. This indicates that the experimental group's participants outperformed the control group's participants in vocabulary retention and recall in the immediate post-test. That is, the first hypothesis that the researcher has proposed is achieved.

Similarly, for the purpose of answering the second question of the research, an Independent-Samples t-test was run. The data given in Table 5 illustrates the descriptive statistics of the delayed post-test for both groups.

Table (5) Control and Experimental Groups' Performance in the Delayed Post-test

Group	No.	mean	Std. Deviation	df	T	Sig.
Control	18	21.11	1.023	34	8.417	0.000
Experimental	18	24.50	1.295			

It is obvious from the table that the t value (8.417) is significant at α 0.01. This indicates that the experimental group's participants outperformed the control group's participants in vocabulary retention and recall in the delayed post-test. That is, the second hypothesis that the researcher has proposed is achieved.

For the purpose of discovering the main purpose of the study which is "Identifying the Impact of Using Pictures on Vocabulary Retention and Recall by Primary Stage Learners", ANOVA program was used in order to find out the ETA value as shown in the following table:

Table (6) Comparison Between the Mean Scores of the Experimental Group in the Pre-test and Immediate Post-test

Reference	Sum of Squares	df	Mean Square	F	Sig.	Eta	Eta Squared
Between Groups	920.111	1	920.111				
Within Groups	101.778	34	2.993	307.373	0.000	0.949	0.900
Total	1021.889	35					

It is clear from the table above that the f value (307.373) is significant at α 0.01. It is also clear from the table that the Eta value is 0.949 which is statistically significant. These findings show that using pictures for teaching English language vocabulary has an impact to increase retention and recall levels of primary stage learners.

The findings of this study are in line with those of Al-Nassir (2012) who found that English words can be recalled better when they are taught by using pictures rather than by translation method. These findings are also in accordance with those of Hampton (1997) who found that information can be recalled better when they are introduced by using pictures rather than without pictures. Furthermore, the study findings are also in congruence with those of Paivio and Csapo (1969), as cited in Hensely (1973), and those of Sampson (1970) who discovered that pictures recorded better recall than words.

Results of this study can be referred to in terms of the encoding and decoding processes. The dual-coding explanation of Paivio might be applied when an Arabic-Native speaker learn an English word. In the current study, learners in the experimental group receive the meaning of the English word through a picture. That is, the English word is fixed in learner's memory in two different codes: linguistic code (i.e. the English word) and imagery code (i.e. the meaning through a picture). On the other hand, learners in the control group receive the meaning of the English word through an Arabic word. That is, the English word is fixed in learner's memory in one code: linguistic code (i.e. both the English word and the meaning in Arabic). So, the items that are encoded dually may have a big chance to be evoked and remembered from two channels (either linguistic or imagery) whereas the items that are encoded in one way may have a chance to be evoked only from one channel (i.e. linguistic).

The researcher also provides another explanation to the finding that English words can be recalled better when they are taught by using pictures than by translation method. Throughout introducing the target words in the sessions, learners became more motivated and interactive in the experimental group than in the control group. This finding is in line with the claim of Miller (2011, p. 1) and Danan (1992, as cited in Rokni and Karimi, p. 236) who suggested that using pictures helps to

motivate learners and increase their attention inside classroom. Consequently, the probability of acquiring the new words will be high which in turn positively affects the retention and recall levels.

5. Conclusion and recommendations

Based on the results of the current research, it is concluded that vocabulary can be recalled better when they are taught by using pictures rather than by translation method. In general, we can say that using pictures can have a positive impact on primary stage learners' retention and recall of English vocabulary. They can increase retention and recall levels to a higher degree.

According to the current study findings, the researcher recommends that pictures are better to be used for teaching vocabulary for primary stage learners. It is recommended that primary stage curricula designers should take imagery strategies into consideration while building content to help teachers introduce new vocabulary to their learners in an effective way. It is also recommended that those who find difficulty in recalling English vocabulary can learn new words with the help of using pictures for pictures can help in long-term retention. Moreover, pictures that are selected and used for the purpose of teaching vocabulary should be clear and don't contain many details to avoid the potential of meaning multiplicity. The study might also be conducted in different locations. Finally, further research is recommended to find out to what extent these results can be applicable to female primary stage learners.

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