Using Mind Mapping as a Visual Literacy Technique for Developing EFL Vocabulary Learning among Primary School Pupils

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Abstract

The present study aimed at investigating the effectiveness of using mind mapping as a visual literacy technique for developing EFL vocabulary learning among primary school pupils. The participants were 60 pupils of sixth year primary school. Sixty pupils were randomly selected from Alandalus Private School in Sidi Salim Governorate, in Kafr-El SHeikh during the second semester of the academic year 2018/2019. They were assigned to two groups:(30) pupils as an experimental group, and (30) pupils as a control group . The experimental group received teaching vocabulary by using visual literacy techniques while the control group received the regular method in teaching vocabulary. The instrument was an EFL pre-post vocabulary learning test. The test was scored and the findings were analyzed using a t-test. Results of the study revealed that there was a significant difference in the pre-post test in favor of the post test. Accordingly, the visual literacy is effective for developing the sixth year primary school pupils' vocabulary learning.

Keywords: Visual literacy techniques, Vocabulary learning.

ملخــص الدراســة

استهدفت الدراسة الحالية البحث في تنمية مفردات اللغة الانجليزية كلغة أجنبيه لدى تلاميذ المرحلة الابتدائية عن طريق استخدام الخريطة الذهنية كفنيه من فنيات التنور البصري. حيث شارك 60 تلميذ من الصف السادس في مدرسه الأندلس بسيدي سالم, محافظه كفر الشيخ و قم تم توزيعهم إلي مجموعتين أحداهما تجريبية(30) تلميذ والأخرى ضابطه(30) تلميذ. و قد قامت الباحثة بتطبيق اختبار قبلي-بعدى لمفردات اللغة الانجليزية علي العينة المذكورة. نتائج البحث أشارت إلى تفوق تلاميذ المجموعة التجريبية في الاختبار البعدى مقارنه بدرجات المجموعة الضابطه.

Introduction

Vocabulary is a crucial component in learning EFL/ESP English language. Vocabulary is not just a sub-skill in learning English because without having enough vocabulary the learner can not listen, speak, read or write easily and intensely. Vocabulary is one of the main elements that convey meaning and help communication. For Fadel (2011:170), vocabulary in English language is not always given the consideration it deserves in EFL learning and teaching programs, even though it is a Cinderella and a basic component in the teaching of foreign languages.

Vocabulary learning is important for some reasons for foreign language learners. First, vocabulary contributes to comprehension. Second, it improves the achievements because learners with large vocabulary have the best score in achievement tests. Third, it enhances writing well in addition to understanding what is heard and read. Finally, vocabulary can shape thinking (Bromley, 2002:7). Learners when understand, use vocabulary and know meaning, they have one of the components to master English as a foreign language which is vocabulary master and this helps them greatly to develop their performance and learning. Thus, students who have vocabulary mastery, do not have difficulties mastering English (Zahedi & Abdi,2012:2264).

Nation (2001:24) divided vocabulary according to use into two types: Receptive vocabulary and Productive vocabulary. Receptive vocabulary is words that learners can recognize and comprehend during reading or listening, while productive vocabulary is words that learners can recall and use appropriately in speaking and writing to convey their messages.

For Milton(2009:44), Vocabulary knowledge involves having the ability to recognize word in its spoken and written forms, know its different meanings, know its part of speech(e.g. a noun, a verb, adverb), being able to pronounce it properly, having the ability to use it correctly within a sentence in a correct grammatical form and recognizing it in context and know the collocations that occur with the new word with

high frequency . Nation (2001:27) divided vocabulary knowledge into three 'aspects': 1)the form; 2) the meaning, and 3) the use of each word.

Vocabulary reveals two types vocabulary teaching: explicit/direct and implicit/indirect vocabulary teaching (Decarrico, 2001:286). During explicit vocabulary teaching, learners give due care to activities that focus attention on vocabulary Such as word-building exercises or guessing words from context (Nation, 2013:2).Allen (2006:11) stated five causes for involving direct/explicit vocabulary teaching: first, to develop knowledge of new and unknown words. Second, to increase reading comprehension. Third, to help learners to communicate more effectively. Forth, to develop deeper understanding of words which they were partially aware. Fifth, to improve writing. For Hussein(2016:544), in favor of explicit instruction learners can guess the correct meanings of vocabulary from context and use dictionaries easily in addition to motivating learners to adopt and choose appropriate vocabulary learning strategies.

Nation (2013:2) pointed out that implicit/indirect vocabulary learning focuses on the 'message' conveyed by the speaker or the writer. The learners' attention is not directed towards vocabulary learning. However, implicit learning can be achieved if the amount of unknown vocabulary is low in such messages.

Nation (2001:218) provided a taxonomy of three general vocabulary learning strategies: 1)planning; 2)source and 3) processes. Thornbury (2004:24-25) listed some techniques for vocabulary learning such as repetition and giving due care to using the new words. In addition to motivation so emotional value of words is very important. Finally, Thornbury asserted the vital role of visualization in vocabulary teaching and claimed that images for the learners have the best influence on remembering.

The traditional notion of literacy was related more or less to proficiency in reading and writing but in today's world, literacy include more than reading and writing . There are many kinds of literacy for instance; media literacy , multimodal literacy, critical literacy and visual literacy (Hughes & Tolley2010:6).

The rationale for utilizing visual literacy techniques in the classroom is the interdependence between reading text, sensory input and perceiving images (Duncum, 2004). The importance of visual literacy is indicated in Stafford(20011:1) as follows: teaching visual literacy in the primary stage is essential and vital for teachers and learners because visual literacy contains many techniques and activities which are fresh and more fun for both teachers and learners. For Stafford 'fun' is not administer word in classrooms particularly primary in addition it should take its deserved position since it makes learning more easy.

visual literacy, for learners, is a basic requirement as textual literacy and should be expanded to match the reality of today. There are three reasons for this shift from textual literacy to visual literacy: "The first is the changing nature of the younger generation. The second is the tipping point that dramatic when something unique becomes common in the adoption of technology that supports the 21st century skill sets. Third, human reaction to the proliferation of technology creates a high-touch reaction that reintroduces the desire to create artistic work, tell stories, and combine human interactions"(Bleed, 2005:3).

The spects of visual literacy are three: visual thinking, visual learning and visual communication(Moore,1994:106).Lehman(2015:10-11) added other three aspects of visual literacy:1)'decoding' which is the ability of interpretation visual messages as images, 2)'encoding' which is the knowledge and skills needed in presenting ideas in an effective manner. 3)'visual thinking' which exercises the ability to express ideas visually by using pencil/pen and paper.

"The visual literacy standards consist of seven skill areas for images: defining the need, finding and accessing, interpreting and analyzing, evaluating, using, creating, and understanding ethical and legal issues" (Hattwig et al.,2013:67-68). The seven standards of visual literacy competencies are more related to higher education. However; in elementary education, may be one standard or more can be used, but not all the seven standards because it is difficult for learners in elementary stage of learning.

According to Piro(2002); Stokes(2002); Alberto et al.(2007); Ropertson(2007); Williams(2007); Stafford(2011); Rokni& Karimi(2013); Ayed(2016); and Zeyab(2017), 'many' visual literacy techniques can be used inside the classroom such as: pictures, mind maps, timelines, photographs, illustrations, arts, symbols, visual texts, signs, semantic maps, logos, videos, charts& graphs, figures, doodling and images.

Visual literacy has become an important concept and knowable in Education recently, especially in English learning (Stokes,2002; Bamford, 2003; Bleed,2005; Stafford, 2011; Arslan&Nalinci,2014; and Lundy& Stephens, 2015; Tester, 2016; Zeyab, 2017; Hekmati et al., 2018; and Lopatovska et al., 2018).

Context of the problem:

In spite of the importance of vocabulary learning in English Language, there is a lack in vocabulary learning among primary school pupils. For Sanad(2015) the neglect of vocabulary in Egypt is due to 1)learning vocabulary is done through word lists; 2) the little class time; and 3) words are taught un designed and un officially.

The problem of EFL pupils' lack of vocabulary learning revealed itself through the pilot study conducted by the present study researcher in the school year 2015/2016 on a sample of (38) pupils randomly in sixth year El-SHahid Elsaid Abd Elkader primary school.

The results of the pilot study revealed that the majority of the pupils could not achieve 60% of the test and they had problems in:

- Recognizing the meaning of the target words.
- Producing the target words in complete sentences.
- Linking between the form of these words and their meanings.

Besides, some studies such as El-Garhy(2013); Quora(2014); Sanad(2015); Abd El-Aziz(2016); Hussein(2016); Ramadan(2016); El-Barbary(2018) and Abd-ElGawad(2019) stated that there is a problem in learning English vocabulary for the elementary stage pupils.

Therefore, the current study could be considered as an attempt to develop vocabulary learning among primary school pupils through using some visual literacy techniques.

Statement of the Problem

There is a lack in vocabulary learning among the sixth grade primary school pupils. This study is an attempt to investigate the effectiveness of using some visual literacy techniques for developing EFL vocabulary learning among sixth- year primary school pupils.

Questions of the study

the present study is an attempt to answer the following questions:

1- What are the EFL vocabulary required for the sixth year primary stage pupils?
2- What are the basis of visual literacy techniques for developing EFL vocabulary learning among sixth year primary school pupils?
3- What is the effect of using some suggested visual literacy techniques in developing vocabulary learning among sixth year primary stage pupils?

Scope of the Study

This study is limited to the following:

a) A sample of sixth year primary stage pupils at Al Andalos Private School in Sidi Salim Governorate, in Kafr-El SHeikh (N=60) because They have ample knowledge of how EFL works. Thus sharing in applying the visual literacy techniques was not difficult for them.
b) Some visual literacy techniques required for the sixth year primary school pupils: mind maps, image analysis, mystery image, flowcharts, and doodling.

Procedures of the study

1- Identifying the EFL vocabulary required for the sixth year primary stage pupils through:

▪ Reviewing the literature and the previous studies related to the EFL vocabulary learning and preparing a list of EFL vocabulary

required for sixth year pupils enrolled at Alandalus Private School in Sidi Salim Governorate, in Kafr-El Sheikh. Then, Submitting the list to a jury of verify its validity. Finally, modifying the list according to the jury' s point of views.

2- Designing the visual literacy techniques through:

- Reviewing the literature and the previous studies related to the visual literacy techniques and identifying the objectives and the steps of each. Then identifying the procedures and evaluation techniques followed during the implementing the study.

3- Identifying the effectiveness of some suggested visual literacy techniques in developing EFL vocabulary learning among sixth year primary stage pupils:

- Teaching to the study sample using some visual literacy techniques and applying the EFL vocabulary learning test to the study sample after the implementation of the techniques. Then, collecting and tabulating the statistical analysis of the data and interpreting findings of the study. Finally, suggest the recommendations of the study.

Participants of the Study

The participants of the present study consisted of sixth year primary school enrolled at Alandalus Private School in Sidi Salim Governorate, in Kafr-El SHeikh during the second semester of the academic year 2018/2019. The study participants(N=60) were divided into two groups: the experimental group(N=30) and the control group(N=30) pupils.

Instruments of the Study

An EFL pre- post EFL vocabulary learning test.

Validity of EFL Vocabulary Test:

- **<u>Face Validity:</u>** The test was presented to a group of jury members in Curricula and Methods of teaching English in Benha, Mansoura and Zagazig Universities . The jury members agreed that the items of the test are important and appropriate to the level of sixth year primary school.

- **Content Validity:** The test was developed in the light of review of literature, related studies and the jury suggestions. Thus it can be said that the content of the vocabulary test is valid.

Reliability of the EFL Vocabulary test:

For estimating the reliability of the vocabulary learning test, it was administrated to a random sample of 30 sixth year pupils, not included in the experimental or the control groups. After two weeks the test was re-administered to the same participants. The Pearson correlation between the scores of the first and the second rater was 0.982 which was statistically significant at 0.01 level. Thus the test was considered reliable.

Time Duration of the study

The study application began at the beginning of the second term in the academic year 2018/2019.It lasted for 8 weeks at a rate of three sessions a week, and every session lasted for 45 minutes.

Aims of the study

The present study aims at achieving the following objectives:
- Identifying the EFL vocabulary required for the sixth year primary stage pupils.
- Developing the EFL vocabulary required for the sixth year primary stage pupils.
- Investigating the effectiveness of using mind mapping as a visual literacy technique in developing EFL vocabulary learning among sixth year primary stage pupils.

The Evaluation Techniques of pupils

1- Intial evaluation: to determine the level of vocabulary learning, the initial evaluation was done through the pre-test. The results of the pre-test indicated that the pupils' scores were low.
2- Formative evaluation: at the end of every session, the formative evaluation was done to help pupils recognize their points of weakness and helped the researcher to evaluate the pupils' success during the implementation of the strategy.

3- Summative evaluation: at the end of the study the researcher used the summative evaluation through post-testing the pupils to measure the pupils' vocabulary learning.

Findings and Discussion of the Study

The primary purpose of the present study is to develop primary school pupils' vocabulary learning through using some visual literacy techniques. The results of the present study showed that visual literacy techniques have improved the experimental group pupils' vocabulary learning than the control group pupils in the post application of the vocabulary learning test compared to the pre-test. These improvements can be due to the effectiveness of using some visual literacy techniques. Moreover, the vocabulary activities and tasks are more suitable to the study participants.

Pre-Post Test

The t-test was used to compare the mean scores of the study sample in vocabulary(Production and recognition) on the pre-post vocabulary learning test. Table(1) and table(2) present the pupils' mean scores, standard deviation- value and the level of the significance of the study sample in the pre-post vocabulary learning among experimental group and control group.

Table (1)

Results of t-test between Pre-test & Post-test Application for experimental group in(Total Production& Recognition) , Production and Recognition.

Variables	N	Application	Mean	Std. Deviation	Paired Differences		T value	df	Sig
					Mean	Std. Deviation			
(Total Production& Recognition)	30	Pre	16.03	5.98	10.07	4.46	12.352**	29	0.000
		Post	26.10	7.40					
Production	30	Pre	6.73	3.17	6.00	4.14	7.930**	29	0.000
		Post	12.73	5.45					
Recognition	30	Pre	9.30	3.29	4.07	2.02	11.048**	29	0.000
		Post	13.37	2.43					

*Significant at level 0.05

**Significant at level 0.01

As shown in the table(1)" there is a statistically significant difference between the mean scores in the sample of experimental group in the pre-post test of vocabulary learning in favor of the post test" where the(t=12.352<0.05) which is significant at the (0.05) level of significant.

Table (2)

Results of t-test between Pre-test & Post-test Application for control group in(Total Production& Recognition) , Production and Recognition

Variables	N	Application	Mean	Std. Deviation	Paired Differences		T Value	df	Sig
					Mean	Std. Deviation			
(Total Production& Recognition)	30	Pre	17.03	4.44	1.07	2.68	2.182*	29	0.037
		Post	18.10	4.17					
Production	30	Pre	6.83	2.48	1.30	1.93	3.685**	29	0.001
		Post	8.13	2.49					
Recognition	30	Pre	10.20	2.41	0.23	1.72	0.745	29	0.462
		Post	9.97	2.20					

As shown in the table(2)" there is a statistically significant difference between the mean scores in the sample of control group in the ore-post test of vocabulary learning in favor of the post test" where the(t=2.182<0.05) which is significant at the (0.05) level of significant.

Thus, there is a statistically significant difference between the mean scores of the experimental group and control group in favor of the experimental group as shown in figure (1).
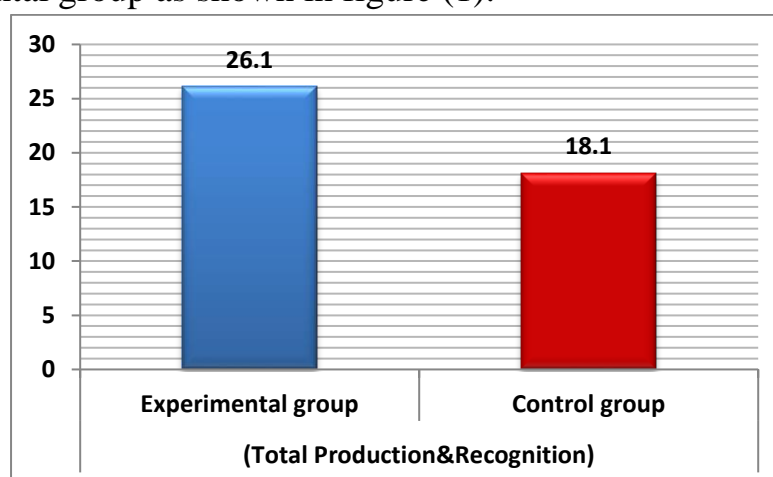
Figure 1: comparison between the mean score of the experimental group and control group.

Conclusion

Based on the results of the statistical analysis of the data, it can be concluded that the experimental group pupils' vocabulary was developed as a result of using 'visual literacy techniques' compared to the control group pupils who were taught through the regular method. This mean that the visual literacy techniques are effective in achieving the aim of the present study.

The effectiveness of the visual literacy techniques may be due to the various and effective activities and tasks that the research offered to the pupils. The results of the present study are consistent with those studies which proved the great effectiveness of using visual literacy such as: Lundy and Stephens (2015); Palmer(2015); Tester(2016); Zeyab(2017); Hekmati et al(2018); and Lopatovska et al. (2018).

To summarize, at the end of the experimentation, the pupils' performance was determined by administering the vocabulary learning test. The conclusion is provided in the following :

a) the visual literacy has been effective in developing primary pupils' vocabulary learning. The pupils have become very careful about the new vocabulary. They have been aware of the spoken and written form of it. They have had the ability of using the vocabulary in complete sentences.

b) using cooperation activities based on visual literacy was effective in overcoming the pupils' anxiety and worry about direct dealing with their teachers or classmates.

c) vocabulary activities helped the pupils recognize their mistakes, and improve their performance through practicing different exercises.

d) using visual literacy inside the classroom was very funny for the pupils than the regular methods.

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