

The Effect of Digital Graphic Organizers on Teaching EFL Vocabulary for Primary Stage Pupils and Their Motivation BY

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#### Abstract

The current study aimed at investigating the effect of digital graphic organizers in teaching vocabulary for primary stage pupils and their motivation. The study adopted a quasi - experimental design (experimental). Also it included one independent variable which was digital graphic organizers and two dependent variables which were developing EFL vocabulary and developing their motivation. The sample of the study consisted of a group of (N=30) from the sixth grade primary pupils. The researcher taught them by using digital graphic organizers. The following instruments were used to achieve the questions of the study: A diagnostic test to measure the level of weakness of the pupils in learning vocabulary, a pre-posttest in vocabulary and a motivation scale. The t-test is used to determine the statistical differences of the mean score of the group before and after the experiment. The current study indicated the positive effectiveness of using digital graphic organizers on teaching EFL Vocabulary and the motivation for primary sixth grade pupils. The study reached to the positive method "digital graphic organizers". It facilitated the teaching of EFL vocabulary for pupils, and encouraged English supervisors and teachers to use the current strategy in teaching that makes pupils share and activate their thinking and abilities. It helped pupils to pay their attentions with teachers because the teaching through new methods as digital graphic organizers is very interesting, and trains English teachers to use digital graphic organizers in their teaching. It makes teachers use new methods, which reduce teachers' efforts, make them



guiders for pupils and make pupils participants in the class and adapt digital graphic organizers in teaching the units in all educational stages. **Key words**: Digital graphic organizers-vocabulary-motivation.

#### Introduction

English is one of languages in the world that has an important role in communication. It has become international language and is almost used in all part of life, especially in education which is used as one of compulsory subjects taught in some education institutes. The goal of learning English in education institutes is to develop students' communication competence and improve their skills both in spoken and written forms. English learning involves the four language skills; they are listening, speaking, reading and writing. These four language skills are supported by four aspects such as grammar, vocabulary, spelling and pronunciation which are also learned in English learning process. English that has different structure from Arabic language makes students have difficulties in learning English. Most learners are still confused when they want to use words to express their thought and feeling. Thus, it is necessary for learners to learn vocabulary.

(Thornburry, 2012, p.13) said, "Without grammar very little can be conveyed, without vocabulary nothing can be conveyed". Vocabulary is the center in English learning process because vocabulary is part of other aspects and skills. Although students mastered in grammar aspect, we cannot say that they mastered in English if they have problems in vocabulary. "A large vocabulary improves achievement and students with larger vocabulary often score higher on achievement tests than students with smaller vocabularies" (Webber, 2012). Webber further adds that a large vocabulary improves thinking and communication by allowing students to communicate in precise, powerful, persuasive and interesting ways. Most students cannot master vocabulary because it is not an easy thing to learn. Mastery of vocabulary is difficult to achieve because the students have a limited ability in memorizing words. It is impossible for students in memorizing English words which have a thousand words. It is not an easy task for teachers to teach vocabulary because the limited ability of



students. So that it is needed to apply an appropriate strategy to teach vocabulary.

There are many strategies to teach vocabulary, but not all strategies can be applied. As a teacher, one has to notice the characteristics of the students, whether it is appropriate or not. In this research, the writer focuses on the grade six pupils of El Dawa primary school. The purpose was to help pupils to prepare their vocabulary before they were at the ninth grade for the national exam. However, during the vocabulary learning, there were some students which had difficulties in memorizing and understanding new words because they were only asked to write the words in their note. Since each student had different characteristic, some of them only wrote the words without organized their note. They also often made mistakes or errors spelling and writing words. Thus, the writer uses a strategy which is appropriate with the characteristics of the students. The study uses digital graphic organizers by which the students can understand the word easily. "Words are important to be learned because without words we would be unable to convey our thoughts through language or understand the thoughts of others". (Framkin et al., 2011, p.36). Words can be learned in many ways, one of them is by using digital graphic organizers. Graphic organizers provide opportunity to students to explore more about words. Through digital graphic organizers they can learn words more specific.

Digital graphic organizers provide an opportunity to learn words wider. This strategy is so effective in improving pupils' vocabulary and students active to explore a word. Pupils can use this strategy not only in the class, but also they can use it in home. Digital graphic organizers make pupils easier in learning and memorizing a word. This strategy has various concepts that can help students and teachers in learning a word. Besides, they can develop and categorize a word into some aspects; it depends on the topic and the purpose of the lesson. Digital graphic organizer generally consists of 5 columns or more, and has various concepts based on the function and purpose. Every concept has some contents; it depends on the purpose of the lesson. The contents can be synonym, antonym, meaning, part of عدد يوليو الجزء الثاني ٢٠٢٠



speech, picture, sentence, etc. Graphic organizers can be used in variety of learning situations for individual, small group, and whole class. There are some graphic organizers that can be used for students in learning vocabulary. Every graphic organizer has different function and purpose; it depends on the grade and the characteristics of the students.

Many educators have considered students' motivation as an important factor for successful learning (Britner, 2008; Singh et al., 2005; Vedder-Weiss & Fortus, 2011, 2012, 2013). Although scholars have suggested many definitions of motivation in the literature, motivation is generally defined as "an internal state that arouses, directs, and sustains goal-oriented behavior" (Glynn et al., 2011, p. 1160). Motivation is affected by diverse factors. According to expectancy-value theory, two general sources of motivation are an individuals' expectation of success and the value that they place on a goal. Over the past two decades, the expectancy-value theory of motivation has received considerable attention due to its significant role in assessing students' motivation in learning and their academic performance. (Eccles, 2006, p. 206) developed a comprehensive theoretical model linking achievement-related choices to two types of beliefs: "the individual's expectations for success and the importance or value the individual attaches to the various options perceived by the individual as available".

Expectancy is individuals' judgment of their own abilities. For example, students more concerned with expectancy in terms of their capabilities ask themselves the following question: "Can I solve this grammar problem?" A value is an individual's belief about the importance of something or the reasons why they may engage in certain tasks. The expectancies and values of learners can be influenced by task-related beliefs such as perceptions of competence and individuals' goals and self-efficacy along with their affective memories from various learning experiences in the past. Further, current expectancies and values play an important role in determining an individual's choice, persistence, and achievement, how well they will do in the learning activity in the immediate or long term future, and the



extent to which they value the goal that they strive to achieve (Eccles, 2006).

### **Context of the Problem**

As known that learning EFL vocabulary is very important for pupils to pass the exams. It was observed by the researcher during teaching to grade six at El Dawa primary school that some pupils have problems in memorizing and understanding the meaning of words. During the learning process, pupils have difficulties in defining a word when they are reading or writing a text. In comprehending a text, it is needed to have a lot of vocabularies. Not only memorizing and understanding as the problem, but also make errors spelling and writing words. The researcher decided to do a diagnostic test to be sure of the problem. This test included all the points that mentioned upwards. The test was given to pupils in two classes with different levels. The obtained results showed that the majority of the pupils have had problems in memorizing and understanding the meaning of words. Some pupils couldn't even know the meaning of the questions.

Considering the importance of learning vocabulary, the researcher uses Digital graphic organizers to teach vocabulary. Digital graphic organizers help pupils to improve vocabulary by connecting a word to definition, synonym, antonym, picture, example, etc. Besides, digital graphic organizers also help pupils to organize their vocabulary note through interesting way. It also will help to develop the pupils' motivation for learning English and vocabulary. In this research, the researcher wants to know how the digital graphic organizers strategy can improve pupils' learning vocabulary and improve their motivation. **Statement of the Problem** 

The problem of the study showed on the pupils' problem to know and the misunderstanding of the meaning of words. During the learning process, pupils have difficulties in defining a word when they are reading or writing a text, they also have a lack of motivation during learning English specially learning vocabulary. So the problem of the study stated to the major question:



What is the effect of using digital graphic organizers in teaching vocabulary for primary stage pupils and their motivation?

### Questions of the Study

This major question of this study can be divided into the following subquestions:

- 1. What is the effect of digital graphic organizers on teaching EFL vocabulary for primary stage pupils?
- 2. What is the effect of digital graphic organizers on pupils' motivation?

### **Objectives of the Study**

The study was intended to:

- 1. Identify the taught vocabulary in the target stage of the study.
- 2. Investigate the effect of digital graphic organizers on teaching vocabulary for primary stage pupils.
- 3. Investigate the effect of digital graphic organizers on pupils' motivation.

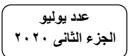
### Significances of the Study

The significance of the study sprang from the following:

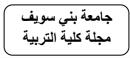
- 1. Facilitating the teaching of the vocabulary for primary stage pupils.
- 2. Helping students to pay their attentions with teachers because the teaching through new methods as digital graphic organizers is very interesting.
- 3. Making teachers, use new methods, which reduce teachers' efforts, make them guiders for pupils and make pupils participate in the classroom.
- 4. Making pupils interact with each other and with their teachers, and helps pupils on consolidation of information better than traditional methods.
- 5. Investigating the effect of using digital graphic organizers strategy in teaching vocabulary for primary stage pupils and their motivation.

## Hypotheses of the Study

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- 1. There is a statistically significant difference between the mean score of the study group in the pre post vocabulary test in favor of the post test.
- 2. There is a statistically significant difference between the mean score of the study group in the pre post motivation scale in favor of the post scale.

### **Delimitations of the Study**

The current study was delimited to:

- 1. Participants of 30 pupils of sixth grade primary pupils in El Dawa primary schools in Beni Swef.
- 2. Ten lessons of the reading time, vocabulary learning lessons.
- 3. Using digital graphic organizers in teaching these lessons.

#### Methodology Population

The population of the study consisted of 6<sup>th</sup> grade primary pupils at El Dawa primary schools in Beni Swef. Directorate enrolled in the second semester of the academic year (2019-2020).

## Participants

The participants were randomly selected from El Dawa primary schools in Beni Swef. A group of 6<sup>th</sup> grade primary stage pupils. There was only one group (the study group).

## **Design of the Study**

This study adopted a quasi-experimental design employing one group. The materials of the research have applied on the group pre and post the experiment. The researcher taught the group of the study by using digital graphic organizers strategy.

This design included the following variables:

- 1. Independent variable, which was used digital graphic organizers.
- 2. Dependent variables, which were teaching vocabulary for primary stage pupils and their motivation.

## Instruments of the Study

1. A vocabulary pre-post -test to know the effect of the strategy on the pupils' learning vocabulary.



2. A pre-post scale to measure the effect of the strategy on the motivation of the pupils.

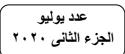
#### Definition of Terms 1- Graphic Organizers:

Graphic organizers are visual portrayals or illustrations that depict relationships among the key concepts taken from the learning task (Hudson et all., 1993; Moore & Readence,1984).Upon reviewing the varied references to graphic organizers, many researchers indicate that they are used to help organize ideas using a non-linear method, which does not require a specific sequence, for teaching and learning (Ausubel, 1960; Anderson-Inman & Ditson, 1998; Blankenship et al., 2005; Bruillard & Baron, 2000; Chiou, 2008; DiCecco & Gleason, 2002; Gerstner & Bogner, 2010; Hay, Kinchin, & Lygo-Baker, 2008; Kwon & Cifuentes, 2007; Meyer, 1995; Royer & Royer, 2004; Sturm & Rankin-Erickson, 2002). Graphic organizer is a-, tree diagram that consists of vocabulary related to one particular concept (Barron & Earle, 1969).

Graphic organizers have been used as a tool to assist learners with skills such as reading and text comprehension, teaching, and notetaking (Anderson-Inman & Ditson, 1998; Blankenship et al., 2005; Crooks et all., 2007; DiCecco & Gleason, 2002; Hudson et all., 1993; Ives, 2007; Nussbaum & Schraw, 2007; Robinson, Katayama, et al., 2006). Graphic organizers have also been utilized as a component of an instructional strategy to support students as they develop new ideas that contribute to written essays (Lorber, 2004; Unzueta, 2009).

### 2- Digital Graphic Organizers:

An organizer, in a digital format, that allows users to organize ideas, information, and resources using text boxes, outlines, graphics, audio, and videos (**Fuller, 2013**). Digital graphic organizer is a support tool for students with emotional disorders, and the use of digital graphic organizers can lead to students with emotional disorders





working independently while grasping content knowledge (**Blankenship et al, 2005**).

Digital graphic organizers are tools that offer ways for students to represent their thoughts or ideas using different fonts, colors, images, and even audio to consider what a text means or to write their own text (**Colwell, 2015**). Digital graphic organizers are strategies which help pupils to organize and visualize their ideas and help them to copy and paste from the graphic organizers to another document, (**Anderson, 2014**). The researcher defines it as a modern strategy that helps pupils engage their knowledge together and to be in touch with new technology.

### **3- Vocabulary:**

Vocabulary is one important component in English learning. Through vocabulary we can improve our language skill because it has important role which can influence the improvement of language skill and other components. As the learners, mastery of vocabulary is needed to communicate with others.(**Arif, 2012**) stated "vocabulary knowledge is knowledge, the knowledge of a word not only implies a definition, but also implies how that word fits into the world". (**Hiebert and Kamil, 2005**) added that vocabulary is not a developmental skill or one that can ever be seen as fully mastered. The expansion and elaboration of vocabularies is something that extends across a lifetime. Throughout the life span, people develop vocabulary effectively and almost effortlessly as long as they see words in meaningful contexts.

The researcher defines vocabulary as the knowledge of a word and lists of words that we can find in our daily life and is used by people to communicate either in verbal or written communication.

## 4- Motivation:

Motivation is the force which provides the impetus for human behavior, causing individuals to initiate and sustain goal-directed actions (Jenkins & Demaray, 2015). Motivation has been the focus of much research involving many theories and constructs (Wigfield et all., 2009). Motivation is a complex entity that has spawned many theories and models (Chaudhary, 2014; Rizwan et all., 2014).



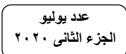
Studies related to digital graphic organizers with learning vocabulary

There are some researchers that conduct research about strategy, technique and method to teach vocabulary.

The first study was The Influence of Mind-Mapping Strategy on Students' Vocabulary Mastery, (Quasi Experimental Study of the Fifth Graders of SD Islam Bilingual An-Nissa Semarang in the Academic Year of 2012/2013). The aim of the study is to find out the significance of Mind Mapping strategy to improve students' vocabulary mastery. This study was conducted by using quasi experimental study with the grade five students as the population. The population consists of two samples; they were class 5B as the experimental group and class 5D as the control group. At the first meeting, the experimental and control group were given a pre-test. In the second to the fourth meetings, the experimental group was taught by using Mind Mapping strategy and the control group was taught by using Making Note strategy. In the last meeting the post-test was given to these classes. The result showed that Mind Mapping strategy made a significant difference in vocabulary achievement to the experimental group than the control group that was not taught by using Mind Mapping strategy (Dewi, 2013).

The second study was conducted by using a game, entitled The Use of Scrabble Game to Teach Vocabulary. There were two objectives of this research. Firstly, the writer wanted to find out the result of teaching English Vocabulary by using scrabble game. Secondly, he wanted to find out the effectiveness of using scrabble game to teach vocabulary for the eighth graders of SMPN 1 Ngadirejo in academic year of 2013/2014. He used quasi experimental to achieve his objectives. The result of his research showed that the average score of experimental group was 81.25 and control group was 71.25. It means that the use of scrabble game in teaching and enhancing students' vocabulary is more effective than the conventional method (*Putra, 2014*).

The next study was a classroom action research that used pictorial story to improve students' understanding on vocabulary. There were three cycles in this research. Every cycle consists of four





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components; they are planning, acting, observing, and reflecting. In the first cycle, students enjoyed the class but not all the students understood of the text and direction. In the second cycle, the average result was better than the first cycle but there were still students who got lower score. And the last cycle, it was better than previous one and students joined the class enthusiastically. It concluded that the implementation of using Pictorial Story to improve students' understanding on teaching vocabulary could be applied(**Firdaus, 2010**).

The next researcher was (Webber, 2012) who wrote in journal which was entitled teaching Vocabulary with Hypermedia. The objective of this study was to determine what effects, if any, technology integration has on the vocabulary development of middle students. The researcher identified the weak area of the sixth grade students by planning three integrated instructional activities to teach simile and metaphor and Greek and Latin word roots. The result was the responses for the technology integration activities were favorable and all of the students like using technology to learn and felt that they learn better through the use of technology.

### **Instruments of the Study:**

- A. An EFL vocabulary pre-post test on the target lessons.
- B. A motivation pre-post scale to measure the pupils' motivation during the study.
- A. The Pre-post EFL Vocabulary Test on the Target Lessons:

## **1-** The General Aim of the Test

The general aim of the test was to measure the actual level of the experimental group before and after the treatment. As a pre-test, it aimed to determine the level of the group before the study, while as a post-test, it aimed at identifying any possible progress and difference which occurred in the achievement of the group on the consideration that the experimental group members were taught using the Digital graphic organizers Strategy.

## 2- Constructing the Pre/Post EFL Vocabulary Test

To construct the test, the researcher referred to the directives of the Ministry of Education particularly vocabulary of primary stage



and reviewed literature and related studies regarding vocabulary learning. Vocabulary test consisted of 20 multiple choice questions, 20 odd one out questions and 20 correct questions which cover English grammar items in use as shown in appendix (I).

## 3- Validity of the Pre-post EFL Vocabulary Test.

For estimating the validity of the test, it was submitted to a panel of jurors (N=5), three faculty members in TEFL and two senior supervisors of ELT. There were some recommendations as follows:

- 1. They recommended modifying the questions; in order to fit the age group of the sixth year primary stage pupils.
- 2. Some of jury recommended reducing the number of multiple choice questions.
- 3. Furthermore, one of the jury members recommended choosing the questions items according to the questions types.

The validity of the test was established according to the following criteria:

- 1- The test items reflect the objectives.
- 2- The questions suit sixth year primary school pupils' level.
- 3- There is coherence between the test items and the table of specifications.
- 4- The layout is acceptable.
- 5- The time assigned is enough to answer all questions.

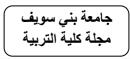
## 4- Reliability of the pre-post EFL vocabulary test

Moreover, prior to the main study, a pilot study was conducted, with a group of 30 students from Al-Dawa primary school who were excluded from the sample, to check the reliability of the pretest and post-tests. In order to prove that the test is reliable, the internal consistency of the test was calculated via Cronbach's Alpha and was 0.87, which indicates that the questions were highly reliable. The correlation coefficients ranged between the score of each question and the total score of the scale from 0.46 to 0.79 which they are all high and function at 0.01.

## **B.** Test Specifications Table

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## 1- The Aim of the Test Specification Table:

The researcher designed this table to determine the type of questions and the items which he wanted to measure by these questions as shown in appendix (II).

## 2- Constructing the Test Specification Table:

To construct the table, the researcher determined the types of questions which he would use in the vocabulary test. He determined the words of the lessons which he tried to measure. He constructed three types of questions as follow:

## **Types of questions:**

- 1- Choose the correct answer (20) points.
- 2- Circle the odd one out (20) points.
- 3- Correct the underlined word (20) points.

# **3-** Validity of the Test Specification Table:

For estimating the validity of the scale, it was submitted to a panel of jurors (N=5), three faculty members in TEFL and two senior supervisors of ELT. The researcher completed the final form of the table after the jurors' recommendations.

## C. The pre-post Motivation Scale

# **1**- The Aim of the Pre-post Motivation Scale:

In its pre- administration, it aimed at ensuring the motivation of the pupils before the experiment. Post engagement scale aimed at measuring 6th year primary pupils' progress on motivation due to digital graphic organizers strategy.

## 2- Constructing the Pre/ post Motivation Scale

To construct the scale, the researcher reviewed literature and related studies regarding engagement scales. He adopted some of these scales like Dr Andrew Martin's, Jo Dodds's, D Matthews's and Schaufeli's engagement scales. He developed his own engagement scale by choosing which fit and suitable for this grade. The Engagement scale consisted on 16 questions with five items as shown in appendix (III).

## Procedures of teaching the group

1- Teaching the Study Group

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The study group was taught by using digital graphic organizers strategy. The pupils studied three weeks. It started from 9/2/2020 to 27/2/2020.

#### 2- Administration of the Post Test

After ending teaching the study group they were applied to the post test of the vocabulary.

### **3-** Administration of the Post Motivation Scale

After ending teaching the study group they were applied to the post scale to find out if there would be any change from the pre scale.

## **Results and Discussions**

#### **1-** Result of the First Question:

The first question stated "What is the effect of digital graphic organizers on teaching vocabulary for primary stage pupils?" it was answered in chapter 3 totally.

### 2- Results of the First Hypothesis:

The first hypothesis stated "There is statistically significant difference between the mean score of the experimental group in the pre post vocabulary test in favor of the posttest".

T-test for the experimental group was used to measure the differences between the mean scores of the experimental group in the vocabulary test.

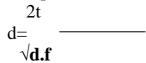
Table (1): T-test results that show the differences between mean scores of the study group in the pre-post vocabulary test:

Group	N.	Mean	SD	T-test	Sig. Level	Effect size
Stu. Pre	30	25.80	4.238	4.173	0.01	0.231
Stu. Post	30	30.90	5.182			

Table 1 proves that there was a significant difference between the results of the experimental group in the pre vocabulary test and the experimental group in the post vocabulary test as the t value was 4.173, which is statistically significant at 0.01Therefore, the first study question is answered, concluding that there is a significant difference in learning vocabulary between learners taught with digital graphic



organizers and the same learners before taught with that strategy in favour of the learners taught with digital graphic organizers. Moreover, in order to make sure that the results obtained from the t-tests are reliable and to measure the effect of digital graphic organizers strategy on students" learning vocabulary, the effect size of this strategy on students" learning vocabulary was calculated according to the following Formula suggested by (*Dunlap, 1994*).



Where  $\mathbf{d}$  = the calculated effect size,  $\mathbf{t}$  = the estimated t value and  $\sqrt{\mathbf{d.f.}}$  = the square root of degrees of freedom. The referential framework for identifying the effect size of t- values is as follow:-

 Table (2): The referential framework for identifying the effect size of T-values:

Effect Size ( d-value)	Degree		
From 0.2 till less than 0.5	Small		
From 0.5 till less than 0.8	Medium		
0.8 or more	Large		

As shown in table (2), the calculated effect size value of the instructional strategy on students" learning vocabulary was (0.231). Therefore, it can be inferred that the digital graphic organizers strategy had a large effect on the experimental group pupils" learning vocabulary performance on the post- test as compared to that of the pre test.

## **3-** Results of the second hypothesis:

The second question states "There is statistically significant difference between the mean score of the experimental group in the pre post motivation scale in favor of the post scale".

To answer this question, the researcher used t-test for the experimental group to measure if there was a difference between the main score of the experimental group in the motivation pre-post scale.



Table (3): Shows results concerning the second hypothesis which addressed the differences between the mean scores of the study group of the pre-post motivation scale.

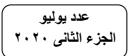
Group	N.	Mean	SD	T-test	Sig level	Effect size
Stu. Pre	30	19.30	4.087	5.282	0.01	0.324
Stu. Post	30	24.43	3.411			

Table (3) presents t- test results of the pupils' motivation pre- post scale.

The above table shows that the estimated t-value (5.282) was statistically significant at (0.01) level. Thus, it can be safely said that there were statistically significant differences between the mean scores of the pre-post motivation scale in favor of the post scale. In addition, the effect size value (0.324) shown in the above table reveals that teaching by using digital graphic organizers strategy had a large effect on the study group pupils' motivation on the post-test as compared to the pre scale .So, the second hypothesis was confirmed.

#### Conclusion

The results related to both hypotheses of the study showed that using digital graphic organizers strategy in teaching vocabulary had a positive effect on developing vocabulary learning. The study group in the post vocabulary test and the post scale outperformed the same group in the pre vocabulary test and the pre scale in the whole score. As shown in the tables above that the mean score of the pupils in the post EFL vocabulary test and in the post motivation scale is better than the mean score of the same pupils in the pre EFL vocabulary test and the pre motivation scale. The t-value was statistically significant at (0.01) level in both the post test and the post scale. This means that the teacher used an effective strategy "digital graphic organizers", which developed the pupils' ability in learning vocabulary and increased their





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motivation during learning. This strategy may help teacher during teaching not only vocabulary but also any other English language skills, which will have its good effect on their pupils.

#### Recommendations

Based on the results of the current study, the following recommendations were offered:

- 1. The study reached to the positive strategy "digital graphic organizers" facilitating the teaching of English language vocabulary for primary sixth grade pupils.
- 2. Encouraging English supervisors and teachers for using the current strategy in teaching that make pupils sharing and activating their thinking and abilities. Helping pupils pay their attentions with teachers because the teaching of new strategy as digital graphic organizers is very interesting.
- 3. Training English teachers for using digital graphic organizers in their teaching. Making teachers, use new methods, which reduce teacher's efforts, make them guiders for pupils and make pupils participate in class.
- 4. Adapting digital graphic organizers in teaching vocabulary in all educational stages.

### **Suggestions for Further Studies**

In light of the present study results, more studies can be suggested in the area of using digital graphic organizers strategy in teaching English as a foreign language:

- 1- Conducting a study to investigate the effect of using digital graphic organizers strategy on developing Pupils' engagement during learning English language.
- 2- Conducting a study to investigate the effect using digital graphic organizers strategy on developing productive skills (speaking and writing).
- 3- Conducting a study to investigate the effect of diagrams on developing pupils' fluency.
- 4- Conducting a study to investigate the effect of stories / songs on developing primary stage pupils' language skills.

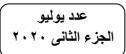




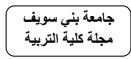
5- Conducting a study using digital graphic organizers strategy to develop the speaking skills.

#### References

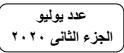
- Anderson, R. (2014). Hand book of research on Digital tools for writing instruction in k-12 settings. Copyright. http:// www.igi-global.com.
- Anderson-Inman, L., Ditson, L. A., & Ditson, M. T. (1998). Computer based concept mapping: Promoting meaningful learning in science for students with disabilities. Information Technologies and Disabilities Journal, Special K-12 issue, June 1998.
- Arif, M., & Jaeni, S. (2012). Teaching English Vocabulary Using Circle Games Strategy at MI Bojongjati Cianjur. Final Project STKIP Siliwangi Bandung.
- Ausubel, D. P. (1960). The use of advance organizers in the learning retention of meaningful verbal materials. Journal of Education Psychology, (vol. 51, pp. 267-272).
- **Barron, M. E. (1969).** A note on the historical development of logic diagrams: Leibniz, Euler, and Venn, Mathematical Gazette, (53, pp. 113-125).
- Blankenship, T., Ayres, K., & Langone, J.(2005). Effects of computer based cognitive mapping on reading comprehension for students with emotional behaviour disorders. Journal of special Education Technology, (V.20, pp.15-22)
- Britner, S. L. (2008). Motivation in high school science students: A comparison of gender differences in life, physical, and earth science classes. Journal of Research in Science Teaching, (45(8), pp. 955-970).
- Bruillard, E., & Baron, G -L. (2000). Computer-based concept mapping: A review of cognitive tool for students. Proceedings of Conference on Educational Uses of Information and Communication Technologies, (pp. 331-338).
- Chaudhary, N. (2014). Role of motivation in talent retention and increasing productivity. Suresh Gyan Vihar University. Retrieved from. http://hdl.handle.net/10603/25024.
- Chiou, C. (2008). The effect of concept mapping on students' learning achievements and interests. {Innovations in Education and Teaching International}, (vol. 4, pp. 375:387).
- Colwell, J., & Hutchison, A.(2015). Bridging Technology and Literacy Developing Digital Reading and Writing, 94.







- Crooks, S., White, D., & Barnard, L. (2007). Factors influencing the effectiveness of note taking on computer-based graphic organizers. Journal of Educational Computing Research, (vol. 4, pp. 369 39).
- **Dewi, A., & Rahmatika, R. (2013)**. *The Influence of Mind Mapping Strategy on Students'' Vocabulary Mastery*. Final Project Semarang State University.
- DiCecco, V., & Gleason, M. (2002). Using graphic organizers to attain relational knowledge from expository text. Journal of Learning Disabilities, (35 th ed. Vol. 4, pp. 306-320).
- Eccles, J. S. (2006). A Motivational perspective on school achievement. In R. J. Sternberg & R. F. Subotnik (Eds.), Optimizing student success in school with the other three Rs: Reasoning, resilience, and responsibility (pp. 199-224). Greenwich, Conn: IAP.
- **Firdaus, H. A. (2010).** The Use of Pictorial Story to Improve the Students'' Understanding on English Vocabulary. Thesis Walisongo State Institute of Islamic Studies Semarang.
- Fromkiin, S., & Victoria, Y. (2011). An Introduction to Language. Carada: Cengage Learning.
- **Fuller, M. (2013).** The impact OF digital and paper-based graphic organizers on the persuasive writing process of fourth and fifth grade students.
- Gerstner, S., & Bogner, F. X. (2010). Cognitive achievement and motivation in hands-on and teacher-centered science classes: Does an additional hands-on consolidation phase (concept mapping) optimize cognitive learning at work stations? International Journal of Science Education, (32 <sup>th</sup> ed. Vol. 7, pp.849–870).
- Glynn, S. M., Brickman, P., Armstrong, N., & Taasoobshirazi, G. (2011). Science motivation questionnaire II: Validation with science majors and non-science majors. Journal of Research in Science Teaching, (48<sup>th</sup> ed. Vol. 10, pp. 1159-1176).
- Hay, D., Kinchin, I., & Lygo-Baker, S. (2008). Making learning visible: the role of concept mapping in higher education. Studies in Higher Education, (33<sup>th</sup> ed. Vol. 3, pp. 295–311).
- Hiebert, E. H., & Kamil, M. L. (2005). *Teaching and Learning Vocabulary*. USA: Lawrence Erlbaum Associates, Inc.
- Hudson, P., Lignugaris-Kraft, B., & Miller, T. (1993). Using content enhancements to improve the performance of adolescents with learning disabilities in content classes. Learning Disabilities Research & Practice, (vol. 8, pp. 106-126).
- Ives, B. (2007). Graphic organizer applied to secondary algebra instruction for students with learning disorders. Learning Disabilities Research & Practice, (22<sup>th</sup> ed. Vol. 2, pp. 110-118).Retrieved January 10, 2009.



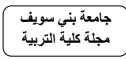


- Jenkins, L. N., & Demaray, M. K. (2015). An investigation of relations among academic enablers and reading outcomes. Psychology in the Schools, (52<sup>th</sup> ed. vol. 4, pp. 379-389).
- Kwon, S. Y., & Cifuentes, L. (2007). Using computers to individually- generate vs. collaboratively-generate concept maps. Educational Technology & Society, (10<sup>th</sup> ed. Vol. 4, pp. 269-280).
- Lorber, M. (2004). Instructional computer technology and student learning: An investigation in using Inspiration Software to improve 8th grade students' ability to write. (Unpublished Doctoral dissertation). Fielding Graduate Institute: Santa Barbara, CA.
- Meyer, D. (1995). The effects of graphic organizers on the creative writing of third grade students.
- Moore, D. W., & Readence, J. E. (1984). A quantitative and qualitative review of graphic organizer research. Journal of Educational Research, (78<sup>th</sup> ed. Vol. 1, pp. 11-17).
- Nussbaum, E. M., & Schraw, G. (2007). Promoting argument counterargument integration in students' writing. The Journal of Experimental Education, (76<sup>th</sup> ed. Vol. 1, pp. 59-92).
- Putra, S. H. (2014). *The Use of Scrabble Game to Teach Vocabulary* .Final Project Semarang State University.
- **Rizwan, M., Tariq, M., Hassan, R., & Sultan, A. (2014).** A comparative analysis of the factors effecting the employee motivation and employee performance in Pakistan. International Journal of Human Resource Studies, (4<sup>th</sup> ed. Vol. 3, pp. 35-49).
- Robinson, D. H., Katayama, A. D., Beth, A., Odom, S., Hsieh, Y-P., & Vanderveen, A. (2006). Increasing text comprehension and graphic note taking using a partial graphic organizer. Journal of Educational Research, (vol. 100, pp. 103-111).
- **Royer, R., & Royer, J. (2004).** Comparing hand drawn and computer generated concept mapping. Journal of Computers in Mathematics and Science Teaching, (23<sup>th</sup> ed. Vol. 1, pp. 67-81).
- Singh, K., Chang, M., & Dika, S. (2005). Affective and motivational factors in engagement and achievement in science. International Journal of Learning, (12<sup>th</sup> ed. Vol. 6, pp. 207-218).
- Sturm, J. M., & Rankin-Erickson, J. L. (2002). Effects of hand-drawn and computer-generated concept mapping on the expository writing of middle school students with learning disabilities. Learning Disabilities: Research & Practice, (17<sup>th</sup> ed. Vol. 2, pp. 124-139).

Thornburry, S. (2012). *How to Teach Vocabulary. London*: Longman.

Unzueta, C. H. (2009). The use of a computer graphic organizer for persuasive composition writing by Hispanic students with specific learning





*disabilities*. (Unpublished doctoral dissertation). Florida International University: Miami, FL.Electronic Theses and Dissertations. Paper 110. <u>http://digitalcommons.fiu.edu/etd/11</u>

- Vedder-Weiss, D., & Fortus, D. (2011). Adolescents' declining motivation to learn science: Inevitable or not? Journal of Research in Science Teaching, (48<sup>th</sup> ed. Vol. 2, pp. 199-216).
- Vedder-Weiss, D., & Fortus, D. (2012). Adolescents' declining motivation to learn science: A follow-up study. Journal of Research in Science Teaching, (49<sup>th</sup> ed. Vol. 9, pp. 1057-1095).
- Vedder-Weiss, D., & Fortus, D. (2013). School, teacher, peers, and parents' goals emphases and adolescents' motivation to learn science in and out of school. Journal of Research in Science Teaching, (50<sup>th</sup> ed. Vol. (8), pp. 952-988).
- Webber, Kristen. (2012). *Teaching Vocabulary with Hypermedia*. Education Journals. (42<sup>th</sup> ed. Vol. 1, pp. 9).
- Wigfield, A., Eccles, J. S., Schiefele, U., Roeser, R. W., & Davis-Kean, P. (2009). Development of achievement motivation. In W. Damon (Ed.), Handbook of child psychology: Vol. 3. Social, emotional, and personality development (Vol. 3, pp.933-1002). Hoboken, NJ: Wiley.



#### الملخص

تهدف الدراسة الحاليه الى معرفة اثر أستخدام منظمات الرسوم البيانية الرقمية في تعليم المفردات لتلاميذ المرحلة الابتدائية واثرها على دوافعهم. أعتمدت الدراسة على المنهج الشبه تجريبي. واشتملت ايضا على متغير مستقل والذي كان منظمات الرسوم البيانية الرقمية ومتغيرين تابعين وهم تطوير تعلم مفردات اللغة الانجليزية كلغة اجنبية وتطوير دوافع المتعلمين لها. تكونت عينة الدراسة من مجموعه من ٣٠ تلميذا من طلاب المرحله الابتدائية الصف السادس الابتدائي. وقد قام الباحث بالتدريس لهم باستخدام منظمات الرسوم البيانية الرقمية. واستخدمت الادوات التاليه للتحقيق من أسئله الدراسة: أختبار تشخيصي لقياس تدنى مستوى تعلم الطلاب لمفردات اللغة الانجليزية، أختبار قبلي بعدي في مفردات اللغة الأنجليزية. ومقياس للدافعية. واستخدم اختبار t لتحديد الفروق الإحصائية لمتوسط الدرجة للمجموعة قبل وبعد التجربة. تشير الدراسة الحالية على الاثار الايجابية لاستخدام منظمات الرسوم البيانية الرقمية على تطوير تعلم مفردات اللغة الانجليزية لدى طلاب المرحلة الابتدائية الصف السادس الابتدائي وتطوير دافعيتهم. تم تقديم التوصيات التالية: توصلت الدراسة إلى الطريقة الإيجابية لتعلم مفردات اللغة الانجليزية الا وهي "منظمو الرسوم البيانية الرقمية". فهي تيس تدريس المفردات للطلاب، ويشجع مشرفي ومعلمي اللغة الإنجليزية على استخدام الإستراتيجية الحالية في التدريس التي تجعل التلاميذ يشاركون وينشطون تفكيرهم وقدراتهم. كما انها تساعد علي جذب انتباه التلاميذ مع معلميهم وذلك لان التدريس بأستخدام استراتيجيات جديدة كمنظمات الرسوم البيانية الرقمية يكون شيقا، كما انه يمرن معلمي اللغة الانجليزية على استخدام منظمات الرسوم البيانية الرقمية في تدريسهم. مما يجعل المعلمون يستخدمون طرق تدريس حديثة والتي تقلل من جهد المعلمين، وتجعلهم موجهين ومرشدين لطلابهم، وتجعل



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الطلاب متفاعلين ومشاركين داخل الفصل ويعزز استخدام منظمات الرسوم البيانية الرقميه في تدريس كل الوحدات في جميع المراحل التعليمية.

الكلمات المفتاحية : منظمات الرسوم البيانية الرقمية، المفردات، الدافعية