

THE EFFECT OF WORD MAPPING TECHNIQUE ON STUDENTS' VOCABULARY MASTERY

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Abstract

The main purpose of this research is to know whether there is any significant effect of using word mapping on students' vocabulary mastery. Quasi experimental is the research design with 10th grader of MA Hidayatul Ulum Lampung as the population of this study. Saturation sampling technique was used in order to decide the sample of this study. There were two classes; experimental class and control class. Word mapping technique was used in experimental class, while control class researcher used memorizing as the teaching technique. In order to collect the data, pre- test and post- test were given to both experimental class and control class. The questions of each test consisted of 20 questions of multiple choice adopted from some students' book that proposed for 10th grader in second semester. The result of this study showed that there was significant effect of using word mapping on students' vocabulary mastery. In other words, word mapping is an effective technique to help students in mastering vocabulary.

Keywords: vocabulary, vocabulary mastery, word mapping

INTRODUCTION

Since vocabulary has an essential part as English component, mastering vocabulary is needed to make the language becomes understandable. Vocabulary is a necessary tool to help people in communication and sharing their ideas (Alqahtani, 2015). Therefore, mastering vocabulary helps everyone especially English language students in understanding the language well. Indriarti (2014) stated that vocabulary helps students to deliver the meaning in a communication. Besides, having a large size of vocabulary is needed in order to avoid misunderstanding of the language (Uzer, 2017).

Regarding to the importance of vocabulary, teaching vocabulary is crucial to be considered. In fact, vocabulary becomes a serious problem faced by students and teachers. Students commonly do not recognize many vocabularies that can

hinder them in comprehend the language, while vocabulary itself affects all the skills whether productive skills (speaking and writing) and receptive skills (listening and reading). Chou (2011) said that having a few size of vocabulary hinders the students in understand English text, while Uzer (2017) stated that students will not confident to share their mind when they do not have enough vocabularies. Hence, it is important to have numbers of words to comprehend all the meanings of both spoken and written language.

In other case, vocabulary also becomes challenging for teachers since English has a role as foreign language in some countries, including Indonesia. The problem that usually faced by teachers is they usually spend the time in explaining about structure instead of vocabulary. They use grammar as the standard of students' English development and achievement (Susanto, 2017). This is because teachers are feeling unsure about the appropriate way and do not know how to deliver vocabulary to the students (Berne & Blachowiz, 2008). Meanwhile, considering to acquire vocabulary around 1000 words family that are learned by native speakers in each age until 20 years or more is a way to gain the goal in learning vocabulary (Nation, 2006).

For that reasons, teachers are expected to have a planning before they teach the vocabulary to the students. Nation (2008) said that making a planning is the most important thing teacher should do before they teach. Hunt & Belgar (2002, as cited on Cahyono & Widiati, 2008) provided three approaches in order to support teachers' planning in teaching vocabulary; incidental learning, explicit instruction, and independent strategy development. Incidental learning is learning vocabulary through indirect learning activities, such as learning vocabulary through reading the text. Explicit instruction provides an intentional vocabulary learning that gives opportunity to the students to learn vocabulary progressively. While independent strategy development allows the students to involve their participations by learning vocabulary individually or collaborate with their friends. These approaches can assist the teacher in teaching vocabulary and allow the students to learn vocabulary well.

Since vocabulary becomes a crucial thing in a language, teachers need to consider about the technique they will use in teaching vocabulary. There are many techniques that can be applied to the students. Word mapping is one of the techniques that is appropriate to be applied in teaching vocabulary. This technique allows students to share their ideas about the word through the definition, the characteristic, and the example of the words that are known (Widyawati, 2016). It can attract students to think more critically. Word mapping helps students to develop their vocabulary knowledge by using the map. The map itself is useful to describe the connection between a center word with another that can create an organizing information in students' mind. Indriarti (2014) pointed out the strength of using word mapping can help students in managing the words in their mind, minimizing learner's flatness, involving students' activeness to think and share their ideas, and build learner's motivation up. When teacher applied this technique in the class, students will know about why the words working in a group moreover makes them easier in expanding their vocabulary knowledge (Harmer, 2007).

There are some previous studies conducted by some researchers, such as Widyawati (2016), Utami (2017), Novitasari (2011), and Huda (2017). They investigated about the use of word mapping effect on students' vocabulary development. They found that there is significant effect of using word mapping on students' vocabulary development. However, there are some differences between the previous studies and this present study. Those studies above held the research in junior high school with general word mapping concept used in their research. While the present study conducted the research in senior high school with modified the concept of word mapping by adding synonym and antonym in the map. Besides, the present research also used explicit instruction as the approach of the vocabulary teaching.

Based on those explanations, this research was conducted to investigate the effectiveness of using word mapping on students' vocabulary mastery. Since it was held in MA Hidayatul Ulum, Lampung with the students of 10th grade were

the subject of this research, the researcher want to know whether word mapping technique is applicable to use in different level.

METHOD

This research used quasi experimental research design in order to know the effect of using word mapping on students' vocabulary mastery. There were two classes needed in this research design; experimental class and control class. Word mapping was used as the teaching technique in experimental class, while in control class researcher used memorizing technique to teach vocabulary.

The population of this research was the 10th grader of MA Hidayatul Ulum, Lampung that consisted of 40 students and divided into two classes. Regarding to the small population of MA Hidayatul Ulum, Lampung, researcher used saturation sampling to determine sample of this research. In addition, researcher made two of small papers which contained the code of each class and shuffled them in order to decide the experimental class and the control class. As the result, class B was an experimental class, and class A was a control class.

Pre- test and post- test were used as the instrument of this research. There were 20 items of multiple choice with different questions for each test. The questions were adopted from some students' book purposed for 10th grader in second semester. Pre- test was given before the treatment to measure students' capability in mastering vocabulary, while post- test was given after the treatment to know the effectiveness of word mapping technique on students' vocabulary mastery.

The data of this research was analyzed through some steps. First, researcher analyzed the mean of the pre- test and post- test through descriptive analysis. Then, researcher analyzed the normality and the homogeneity of the data to measure whether the data are distributed normally and homogenous. At last, researcher analyzed students' vocabulary achievement between two classes experimental and control class in order to know the significant effect of using

word mapping on vocabulary mastery. Independent t- test was used because the data were distributed normally and homogenous.

FINDINGS

Pre- test

Pre- test was given before the treatment in order to know students' capability of their vocabulary knowledge. The result of pre- test of both experimental and control class is in table 1

Table 1 The Result of Pre-test

	N	Mean	Std. Deviation
Pre- test Experimental	20	44.50	6.669
Pre- test Control	20	44.00	7.182

The result shows the mean of pre- test of Experimental class gains 44.50 while the mean of pre- test of Control class is 44.00. It can be seen that the mean of Experimental class is higher at 0.50 than the mean of Control class.

Treatment

Researcher conducted the treatment in three meetings for each experimental class and control class. For experimental class, researcher used word mapping as vocabulary teaching technique supported by explicit instruction as the teaching approach, while memorizing technique was used as the teaching technique of control class. In experimental class, researcher teach vocabulary to the students by elaborating the word. Researcher provided some words that should be elaborated by students and asked them to present it in front of the class. Besides, researcher also prepared a game to ensure students' vocabulary development after using word mapping.

Meanwhile, students in control class were asked to memorize the word with the meaning. Researcher gave some minutes to the students to memorize the words, then erased the meaning of each word. After that, researcher asked students to find the synonym or the antonym of the word mentioned by researcher based on the meaning that already memorized by them.

Post- test

Post- test was given after the treatment in order to know the significant effect of using word mapping on students' vocabulary mastery. The result of post- test of experimental class and control class can be seen bellow

Table 2 The Result of Post- test

	N	Mean	Std. Deviation
Post- test Experimental	20	66.50	9.047
Post- test Control	20	50.25	8.347

The result shows the mean of post- test Experimental is 66.50 while the mean for Control class gains 50.25. It shows that the mean of post- test Experimental is higher than Control class with the difference mean between both class is 16.25.

Normality Test

To measure whether the data of this research are normally distributed or not, researcher did a normality test by using *Shapiro- wilk* on SPSS version 20. *Shapiro- wilk* used because the sample of the research was less than 100. The result as follows

Table 3 The Result of Normality Test

	Class	Statistic	df	Sig.
Student's Score	Pre- test Experimental	.933	20	.174
	Post- test Experimental	.166	20	.144
	Pre- test Control	.200	20	.154
	Post- test Control	.179	20	.094

To make the data categorized as normally distributed data, the significant value must be higher than 0.05 (> 0.05). The result shows the significance value of pre- test Experimental is 0.174 and 0.144 for post-test Experimental. While the significant value of pre- test Control is 0.154 and 0.094 for post- test Control. These result are higher than 0.05, which means the data are normally distributed.

Homogeneity Test

homogeneity test to measure the homogenous of the research data. Below is the result of homogeneity test

Table 4 The Result of Homogeneity Test

		Sig.
Student's Score	Based on Mean	.397
	Based on Median	.450
	Based on Median and with Adjusted off	.450
	Based on Trimmed Mean	.410

The data called homogenous when the significant value is higher than 0.05 (> 0.05). It can be seen from the result above that the significance of students' score Based on Mean is 0.397. It is higher than 0.05, which means the data are homogenous.

Independent Sample T- test

Because the data were distributed normally and homogenous, independent t- test was used to find the significant effect of using word mapping on students' vocabulary mastery. The following is the result of Independent Sample T- test analysis

Table 5 The Result of Independent Sample Test

		T-test for Equal of Means		
		t	df	Sig. (2-tailed)
Student's Score	Equal Variances Assumed	5.904	38	.000
	Equal Variances not Assumed	5.904	37.756	.000

When the significance level is less than 0.05 (< 0.05), it means that there is a significant effect of word mapping on vocabulary mastery. The result of Independent t- test above shows the significance value (Sig. 2-tailed) at 0.000 which means less than 0.05 ($0.000 < 0.05$). In conclude, there is any significant effect of using word mapping on students' vocabulary mastery.

DISCUSSION

This study purposes to find whether there is any significant effect of using word mapping on students' vocabulary mastery. The result of the research above showed that word mapping has the significant effect to help students in mastering vocabulary. Widyawati (2016) stated that this technique helps students to expand their vocabulary knowledge by sharing their ideas about the word through the definition, the characteristic, and the example of the word. It can be proved from the mean between experimental class and control class. They gained different

mean on pre- test and post- test. The difference mean between both classes were 0.50 for pre- test, while for post- test they gained the difference mean at 16.25. Students in experimental class got the better score than students in control class.

Regarding to the result of this research, the activities during the learning process can be a caused of students' differences in mastering vocabulary. Researcher conducted the treatment in three meetings for each experimental class and control class. For experimental class, researcher used word mapping as vocabulary teaching technique that allowed students to share their ideas about the certain words and elaborated it in a map to organize the information of the word. While in control class students were asked to memorize the word with the meaning during the learning process. Besides, they were also asked to find the synonym and the antonym of the certain words.

The activities both classes were totally different. Students in experimental class were involved in elaborating the words that attracted students' activeness. The activities can hinder students' flatness during the learning process. It is supported by Indriarti (2014) that using word mapping can help the students in managing the word in their mind, minimizing students' flatness, involving students' activeness, and build students' motivation in learning vocabulary. Besides, by using word mapping, students will know the reason of the words which are working in a group moreover can help them in expanding their vocabulary knowledge (Harmer, 2007). Otherwise, students in control class were bored with the activities that required them to memorize the words. It was difficult for them to memorize many words that made them gained the lower score than students in experimental class.

As the support of this research, there were some studies conducted by some researchers who also used word mapping as their teaching technique. They found that word mapping has the significant effect on students' vocabulary mastery (Widyawati, 2016; Utami, 2017; Novitasari, 2011; Huda 2017).

In conclusion, word mapping is a useful technique to use in teaching vocabulary that can help students in mastering vocabulary. The activities of this

technique can attract students' activeness that allowing them to think more critically about the certain words.

CONCLUSION AND SUGGESTIONS

This study was held to investigate the effect of using word mapping on students' vocabulary mastery. Pre- test and post- test were given to get the data of this research that were analyzed by using independent t- test.

The result of t- test analysis was found at 0.000 which means lower than 0.05 (<0.05). it showed that there was any significant effect of using word mapping on students' vocabulary mastery. This technique is applicable to use as the teaching technique to help students in mastering vocabulary by elaborating the certain words.

Based on the result of this study, researcher purposes the suggestions for teachers and further researcher. For teacher, they can apply word mapping as the appropriate technique of teaching vocabulary since this technique is applicable to use in every level of school. Meanwhile, further researchers can use this technique in different level, such as college students. Besides, next researchers can try to use this technique with different research design, such as CAR (Classroom Action Research) in order to find another result of the research.

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