

# USING SEMANTIC MAPPING TO IMPROVE 9<sup>th</sup> GRADE STUDENTS' VOCABULARY MASTERY IN MTS AL MUBAROKAH BATUJAJAR IN THE ACADEMIC YEAR OF 2016/2017

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## Abstract

The objectives of this research entitled “Using Semantic Mapping to improve 9<sup>th</sup> grade students vocabulary mastery in MTs Al-Mubarakah Batujajar in the academic 2016/2017”. Concerning to the problem stated above the purpose of this study is to find out whether the use of semantic mapping. In this research was quantitative method. The writer will take one class, as experimental. The instrument is pre test and post test which given to both experiment and control class. The population is 60 9<sup>th</sup> grade students of MTs Al-Mubarakah Batujajar and the sample is 30 students of 9<sup>th</sup> as experiment class and 30 students of 9<sup>th</sup> as control class. The data analysis is computed by *IBM SPSS Ver.16* using *Mann Whitney U test* with 0,05 level of significance. The test result showed that the score is 0,036 which less than 0,05 ( $0,036 < 0,05$ ). Based on the data, it can be concluded that null hypothesis is rejected and alternative hypothesis is accepted. In other word, there is significant difference between students' achievement in experiment and control class which indicates that Semantic Mapping technique can improve students' Vocabulary Mastery.

**Keywords:** Semantic Mapping, Vocabulary Mastery

## INTRODUCTION

English is one of the languages in the world used many people in a lot of countries. it is also recognized as the main language for communication with other people from different countries and cultures. Due to the importance of English as an international languages, many people try to learn and master it as soon as possible so that they will not find any difficulties in communicating with others especially coming from abroad.

In indonesia the government has made some effort to obtain human resources who are able to understand and master English well. Nowadays, English is not only taught for junior and senior high school students but also to the elementary school students. It is done in order to get the young learners of elementary level to be familiar with English as soon as possible. English mastery is a goal that has to be achieved as the target besides two other languages namely Indonesian and vernacular language.

In English as a foreign language in Indonesia, it is seriously learned by many people to have a good prospect to be the community of international world. Considering English is the international language.

In this study the writer chooses Semantic mapping technique to improve students vocabulary mastery. This technique builds students prior knowledge. By using this technique the students also can study independently. It support by Mori (1993) who said that Semantic mapping makes the students become independent learners in the sense that learn by using their own writer thinking.

The author's chooses semantic mapping purpose that students at school should master English vocabulary and its grammatical rules to make good communication to the other people. Therefore, mastering vocabulary can reach the English teaching goals generally.

The author's intention conduct thesis research with the aim that the students were able to increase the vocabulary of the English language properly. All of the above reasons, the writer interests to conduct a research how to improve students' vocabulary. The title is "*Using Semantic mapping to improve 9<sup>th</sup> grade students vocabulary mastery IN MTS ALMUBAROKAH BATUJAJAR IN THE ACADEMIC YEAR OF 2016/2017*".

### **Semantic Mapping Technique**

Semantic mapping is a strategy that can be used in all disciplines to demonstrate the relationships between ideas. When teaching vocabulary explicitly, it can be used as a tool for students to discover the relationships between vocabulary words. As Semantic mapping builds on prior knowledge, and is an active form of learning, it can be a very effective teaching tool.

Hurford and Heasley ( 1983: 1 ) explains that Semantics is " the study of meaning in language " or the study of the meaning of language " or the study of meaning in language. While mapping is derived from the map, which means the map. Development in " lexical Semantics" has prompted the development of the "Semantics field theory"," Semantics networks" or " Semantics girds " strategies which organize in term of interrelated lexical meanings. The Semantics field theory suggest that the lexical content of a language is the best treated not as a " mere aggregation of independent word" but as a collection of interrelating network or relations between words ( stubs, cited in aner,2002).it is noteworthy that words may be grouped together according to different criteria Animals, for example may be grouped term of physical features ; they may be grouped in term of nonphysical features such as pet, wild, food, etc. ( Gairns and Redman,1986 ).

Recently, Semantic mapping has been used in various ways, including the following (Maggard, in Muhtar 2010):

- a. As a technique for increasing vocabulary and improving reading comprehension.
- b. As a means of improving the teaching of study skills
- c. As a framework for identifying use structural organizations of the texts
- d. As a means of teaching critical thinking skills
- e. As a link between reading and writing instruction

### **Teaching Vocabulary**

The procedures of teaching vocabulary by using Semantic mapping are as follow:

- a. Teacher provides the brainstorming to the students before the real activities in the class to activating their prior knowledge.
- b. Teacher gives the reading text to help students find out the target words and as information for the students about the topic of the lesson.
- c. Teacher prepares the central words.
- d. Teacher forms group of discussion. They work in group to determine the meaning and how to use the word.
- e. Teacher display a central word on the whiteboard.
- f. Teacher asks the students to generate the target words as many as possible that related with the central word.
- g. Teacher makes bubbles in whiteboard and asks students to fill it.
- h. Teacher gives correction of the students answer.
- i. Teacher gives the assignment for students in the end of class.

## METHOD

In conducting this research the writer used quasi experimental research design with 2 group pre test and post test. One group is experiment class and the other is control class. The experiment class was given a treatment by implementing semantic mapping technique while control class was not. The writer uses quantitative research method with pretest – posttest control group design which is quasi – experimental, where the study is designed to test hypotheses through instrument and statistical data analysis. The framework of Semantic mapping includes: the concept word, two category examples, and other examples. This is a very interactive process and should be modeled by the teacher first. The steps involved in Semantic mapping are:

- a. Write the concept word on the board
- b. Explain the steps involved and have students think of as many words as they can for the concept word.

Write the list on the board or overhead and have students copy it, and finally in groups have students put the words into categories. According Crowl (1996:15) “populations are group consisting of all people to whom a researcher wishes to apply the findings of the study“. In this case, the writer use is consisting of one class from IX grade students in academic year 2016/2017 of MTS Al-Mubarakah The population. The member of class students. The total of population of this study is 30 students on each class.

The instrument of the study is vocabulary test in the form of objective test. The total of test is 10 items, where the item of the test is the representative from the topic of the material in each meeting. The material of the test is taken from junior high school text book. The post test will be given after treatment. It is consists of 10 item, the highest score is 100. It is given to both experiment and control class. The aim of posttest is to see significance differences between experiment class and control class in vocabulary achievement after Semantic mapping technique is developed in experiment class.

## RESULTS AND DISCUSSION

### Results

The data tabulation of improving students’ vocabulary mastery using semantic mapping technique is based on the calculation of pretest and posttest scores. From the calculated scores, the writer got total score ( $\sum$ ) and Mean ( $\bar{x}$ ) value of both experiment and control class.

**Table.1 Students’ score of experiment class**

No	Name	Pre test	Post test
1	S1	70	85
2	S2	60	70
3	S3	60	70
4	S4	60	70
5	S5	70	75
6	S6	50	70

7	S7	40	60
8	S8	60	70
9	S9	60	70
10	S10	70	80
11	S11	40	75
12	S12	70	80
13	S13	60	70
14	S14	70	80
15	S15	60	75
16	S16	60	80
17	S17	50	70
18	S18	60	75
19	S19	70	70
20	S20	70	75
21	S21	60	75
22	S22	60	80
23	S23	60	70
24	S24	70	75
25	S25	60	70
26	S26	50	75
27	S27	45	75
28	S28	60	70
29	S29	40	75
30	S30	60	70
TOTAL		<b>1775</b>	<b>2205</b>
$\Sigma$		<b>59.17</b>	<b>73.50</b>

From the data calculation above, it can be inferred that the total  $\Sigma$  pre test score of experiment class is 1775 while the total  $\Sigma$  post test score is 2205 and the Mean  $\bar{x}$  of pre test score is 59.17 while the Mean  $\bar{x}$  of post test score is 73.50

**Table.2 Students' Score of Control Class**

No	Name	Pre test	Post test
1	S1	80	90
2	S2	60	70
3	S3	70	80
4	S4	60	70
5	S5	70	75
6	S6	60	70
7	S7	60	70
8	S8	50	70

9	S9	50	60
10	S10	60	70
11	S11	60	70
12	S12	50	70
13	S13	60	70
14	S14	70	80
15	S15	60	80
16	S16	60	80
17	S17	70	80
18	S18	70	80
19	S19	70	80
20	S20	50	70
21	S21	60	70
22	S22	50	60
23	S23	60	60
24	S24	50	70
25	S25	60	70
26	S26	60	70
27	S27	40	60
28	S28	60	75
29	S29	60	60
30	S30	50	60
<b>TOTAL</b>		<b>1790</b>	<b>2140</b>
$\Sigma$		<b>59.67</b>	<b>71.33</b>

From the data calculation above, it can be inferred that the total  $\Sigma$  value of pre test score in control class is 1790 while the total  $\Sigma$  post test score is 2140 and the Mean  $\bar{x}$  value of pre test score is 59,67 while the Mean  $\bar{x}$  of post test score is 71,33

### ***Mann Whitney U test***

After calculating the mean score of both experiment and control class, the test is continued by comparing the significant difference of achievement in vocabulary mastery between experiment class and control class. The test is conducted by *Mann Whitney U test in SPSS ver.16*

**Table 3. man whitney U Test**

	semantic_mapping
Mann-Whitney U	361.500
Wilcoxon W	826.500
Z	-1.386
Asymp. Sig. (2-tailed)	.036
a. Grouping Variable: class	

**Table 4 Ranks**

class	N	Mean Rank	Sum of Ranks
semantic_ mapping 1	30	33.45	1003.50
2	30	27.55	826.50
Total	60		

According to the table above, the data shows that the Sig. (2-tailed) score of post test is 0.036 which less than 0.05 level of significance. By comparing the score of 0.036 with 0.05 level of significance, it can be concluded that  $H_0$  is rejected regarding to Sig. (2-tailed) score of  $0.036 < 0.05$  which means there is significant difference between the students in experiment and control class after post test. The Mean rank score of experiment class is 33.45 higher than Mean rank score of control class is 27.55 It indicates that the experiment class who were taught by semantic mapping technique in vocabulary mastery got better achievement than control class.

## DISCUSSION

The finding of the research showed that semantic mapping Technique can improve students' vocabulary mastery by comparing the post test Mean score of both experiment and control class. The post test Mean score of experiment class was 73.50 while the Mean score of control class was 71.33 which means the experiment class got higher score than control class ( $73.50 > 71.33$ ).

The pre test normality score of experiment class was 0.00 while the post test score was 0.00. For control class, the pre test normality score was 0.00 and post test normality score was 0.00. Because of the normality test scores of both experiment and control class was less than significance level of 0.05 that, the data distribution was not normal. So, for further calculation the writer used non parametric test using *Mann Whitney U* test with *IBM SPSS version 16* to found the significant difference of students' achievement in vocabulary mastery of experiment and control class.

Based on the result of equality variances test, the writer found that the sig.2 tailed score is 0.036 less than level of significance 0.05 which means the  $H_a$  is accepted and  $H_0$  is rejected. It can be concluded that students' improvement in vocabulary mastery by using semantic mapping Technique is better than traditional method

## CONCLUSION

According to the calculation of the data, the writer concludes that semantic mapping technique can improve students' vocabulary mastery. It can be seen from students' post test score of experiment class who had taught by semantic mapping technique during treatment. The value of Mean score of experiment class was 73.50 and mean score of control class was 71.33. Based on the data calculation, the alternative hypothesis ( $H_a$ ) is

accepted because the P-value of Mann Whitney U test = 0.036 which less than significant level 0.05 it means  $H_0 : x_1 > x_2$  was rejected. It is also showed that students' vocabulary mastery can be improved by using semantic mapping technique in the classroom. Semantic mapping technique can make students can cooperate one to another in a group work. It is also able to encourage students to be more active and share their understanding. All students have the same responsibility in understanding the materials and then share their understanding with their group mates.

## ACKNOWLEDGMENTS

*Alhamdulillahirobbil "alamin*, praise to Allah SWT who has enable the writer to finish this research paper. Peace and salutations are always for Rasullulah SAW. During the paper the writer obtained a lot of help, suggestions, and motivations from many people. For that reason, the writer would like to express his gratitude to:

1. Dr.H. Heris Hendriana, M.Pd. as the Head of IKIP Siliwangi;
2. Dr.IrmaSavitriSadikin,M.Pd. as the Head of English Education Study Program;
3. Dr.H .Odo Fadloeli, M.A as the first supervisor,
4. H.Sudiyono,S.Pd.,M.M.as the second supervisor
5. All lectures and staff of English Education Study Program of IKIP Siliwangi Bandung.
6. His beloved parents, Atang Rochman and Nani Rohaeni, also his big family who had given prayer, help, and support.
7. My friends Ayuningtyas from mathematics study program 2015 who helped in typing formulas for data analysis.
8. Students of B2 class (2013/non regular) of English Education Study Program who had given and spirit and cooperation;

Finally, thanks are due to all people who had prayed and supported the writing who cannot be mentioned one by one. My Allah bless them all

## REFERENCES

- Aminuddin, *Pengantar Studi Tentang Makna*,Bandung: CV Sinar Baru, 1988.
- Celce-Murcia, Marianne, *Teaching as a second Language or Foreign Language*, 2<sup>nd</sup> ed, Massachusetts, Heinle & Publishers, 1991
- Djajasudarma Fatimah,*Semantik 2 Pemahaman Ilmu Makna*,Bandung:Refika Aditama,1993.
- Evelyn,Hatch and Cheryl Brown, *Vocabulary, Semantic and language Education*, Cambridge University Press,1995.
- Finocchiaro, Mary and Michael Bonomo, *The foreign Language Learner: A Guide For Teacher*, New York: Regent Publishing Company Inc., 1973.
- Fris, Charles C.,*Teaching and Learning English as a Foreign Language*, Ann Harbor: The University of Michigan Press, 1970.
- Gaims, Ruth and Stuart Redman, *Working with Words*, Cambridge: Cambridge University, 2003.

- Gazal, Lotfi, *Learning Vocabulary in EFL Context through vocabulary Learning Strategies*, Novitas-ROYAL, vol.1 (2).2002.
- Gronlund, Norman E, *Construction Achievement Test*, New York: Prentice Hall,1982
- Harmer, Jeremy, *The Practice Of English Language Teaching 4<sup>th</sup> Edition*, Edinburgh Gate:Person Education Limited,2007.
- Harimukti Kridalaksana, *Kamus Linguistic*, Edisi ke-tiga, Jakarta PT Gramedia Pustaka Utama, 1993