THE EFFECT OF USING SEMANTIC MAPPING TECHNIQUE ON THE SEVENTH GRADE STUDENTS VOCABULARY ACHIEVEMENT IN READING DESCRIPTIVE TEXT AT SMPN 7 BONDOWOSO IN THE 2013/2014 ACADEMIC YEAR

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Abstract

As a part of English, vocabulary is very important for learners to learn and to master. By mastering vocabulary, students are able to understand about the meaning of the words. In fact, many students faced difficulties in learning vocabulary. The objective of this research was to know whether or not there was a significant effect of using Semantic Mapping technique on the seventh grade students' vocabulary achievement in reading descriptive text at SMPN 7 Bondowoso in the 2013/2014 academic year. The research respondents were determined by using cluster random sampling. The research design was used quasi experimental with pretest-posttest non-equivalent groups. The data of this research were obtained from the students' score of pretest and posttest and documentation. The main data was analyzed by using Independent sample t-Test, and it showed that the value of Sig. (2-tailed) is 0.000. Because the value of Sig. (2-tailed) is 0.000, this value was lower than 0.05 (The value of t table p=5% Df=59.943), it indicated that there was a significant effect of using Semantic Mapping technique on the seventh grade students' vocabulary achievement in reading descriptive text at SMPN 7 Bondowoso in the 2013/2014 academic year.

Key words: *Semantic Mapping, vocabulary achievement, descriptive text, quasi experimental researh*

INTRODUCTION

Students' English mastery means they are mastering the four language skills: listening, speaking, reading, and writing. To improve the four language skills students need to master the language components, one of them is vocabulary. Vocabulary is one of the language components and no language exists without words (Napa, 1991:6). It is the basic things to learn language. Without a sufficient vocabulary, one cannot communicate effectively or express his ideas in both oral and written forms (Fauziati in Rahmawati, 2009). Therefore, students in all levels of education have to master English vocabulary to make good communication to other people.

Vocabulary is one of language component integration which cannot be separated from one to another skills, so that to teach vocabulary a teacher have to integrate it with the language skills: listening, speaking, reading, and writing. In this research, the researcher taught the students' vocabulary through reading text. According to the standard competence and the basic competence of 2006 English Based Curriculum (*Kurikulum Tingkat Satuan Pendidikan/KTSP*) for the seventh grade students of junior high school, reading descriptive text is taught to the seventh grade students in the second semester. Therefore, the researcher chose reading descriptive text to teach the students' vocabulary focused on large vocabulary consisted of noun, adjective, and verb. The researcher only chose some of large vocabularies because she wanted the students focused on the vocabularies mostly used in the descriptive text.

Regarding to the explanation, vocabulary is one of important components in reading comprehension because it encompasses all the words we must know to access our background knowledge, express our ideas and communicate effectively, and learn about new concepts. According to the National Reading Panel (2000) there are some core components of reading instruction that are essential to successfully teach how to read. It includes phonemic awareness, phonics and word study, fluency, vocabulary, and comprehension. In line with this, vocabulary experts agree that adequate reading comprehension depends on a person already knowing 90% of the words in a text (Hirsch, 2003:16).

Learning new vocabulary is very complicated for students in Indonesia because English is a foreign

language. Sometimes, they have difficulties in memorizing some vocabularies because there are so many vocabularies which are different in spelling, pronunciation, and meaning which make students find the difficulties in arranging the words. In line with this, Thornbury (2002:23) states that to achieve the outcomes, the learner need not only to learn a lot of words, but also to remember them. Students have to practice vocabulary regularly to help them memorize the words because they often forget the new words which have been learnt. In this case, teachers have important role to help their students master vocabulary by training them to practice vocabulary and giving the review of some new words in order to ensure long term memory of students.

Furthermore, to ensure long term memory of students, teachers must be able to use appropriate technique so that the teaching learning process will be effective. The appropriate technique used by teachers must maintain students' motivation in learning vocabulary including learning unknown words easily, memorizing all words, and practicing some new words.

One of the appropriate techniques that can be used in teaching and learning vocabulary is Semantic Mapping Technique. According to Graves in Antonacci and O'Callaghan (2012:94) Semantic Mapping is one of the most powerful technique to teach vocabulary because it engages students in thinking about word relationships. In the same vein, Barcroft (2004:200) argues that semantic elaboration enhances memory retention of lexical items in the way of memory for previously acquired words, new words recorded as known words, and other types of stimuli.

The preliminary study and the interview with the English teacher of the seventh grade students of SMPN 7 Bondowoso was found out that the teacher never used Semantic Mapping Technique to teach the vocabulary. She usually used conventional technique that was Memorizing Technique.The English teacher of the seventh grade students at SMPN 7 Bondowoso usually teaches vocabulary through reading skill. She integrates vocabulary materials such as noun, adjective, and verb in a reading text. In teaching vocabulary, by using Memorizing Technique, the students have to read the text, find about 30 difficult words including present (verb 1) and past form (verb 2) from the text, and then memorize those words. If the students have some difficulties in memorizing the words they can find the meaning of the words in dictionary.

Previous researchers found out that the effect of Semantic Mapping Technique in teaching and learning process could improve the students' achievement in English skills. For an example, a study comparing mapping word relationships and a contextual approach to learning words indicated that Semantic Mapping Technique produced greater gains in word learning (Margosein et al.,1982).

In the same vein, Kurniasari (2007) the student of Faculty of Teacher Training and Education of Jember University, conducted research entitled "Improving the Second Year Students' Reading Comprehension Achievement at SMPN 1 Tapen Bondowoso". The result of average scores of reading test improved from 71.03 to

75.27 in the second cycle. The result of the research showed that the use of Semantic Mapping Technique can improve students' reading comprehension at SMPN 1 Tapen Bondowoso. Another research that was conducted in 2011 by Agustina another student of Faculty of Teacher Training and Education of Jember University, entitled "The Effect of Using Semantic Mapping Technique on the Tenth Grade Students' Writing Achievement at MAN Jember in the 2010/2011 Academic Year" revealed that there is a significant effect of using Semantic Mapping Technique on the tenth grade students' writing achievement at MAN Jember in the 2010/2011 academic year. The result of mean scores of experimental class who were taught writing by using Semantic Mapping Technique is 80.679 whereas the result of mean scores of control class who were taught writing by using conventional technique is 71.00. It showed that the students from experimental class got better scores than the students from control class.

Based on the previous explanation, the researcher decided to conduct an experimental research related to the use of Semantic Mapping Technique for teaching vocabulary, especially teaching vocabulary through reading descriptive text at SMPN 7 Bondowoso. The experiment of the use of Semantic Mapping Technique in teaching vocabulary was based on the interview and the documentation taken from the preliminary study.

The problem of the research in this study was "Is there any significant effect of using Semantic Mapping Technique on the seventh grade students' vocabulary achievement in reading descriptive text at SMPN 7 Bondowoso the 2013/2014 academic year?"

The objective of conducting this research is to know whether or not there is a significant effect of using Semantic Mapping Technique on the seventh grade students' vocabulary achievement in reading descriptive text at SMPN 7 Bondowoso in the 2013/2014 academic year.

RESEARCH METHOD

The design of this research was quasi experimental research with nonequivalent groups pre-test and post-test design to investigate whether or not there was a significant effect of using Semantic Mapping Technique on the seventh grade students' vocabulary achievement in reading descriptive text at SMPN 7 Bondowoso in the 2013/2014 academic year. The area determination method was SMPN 7 Bondowoso. The school was chosen purposively because of several reasons. First, the research about the use of Semantic Mapping Technique to teach vocabulary has never been conducted at this school. Second, the permission to conduct a research in this school was gotten. The research respondent was the seventh grade students of SMPN 7 Bondowoso in the 2013/2014 academic year. There were five classes consisted of 36 and 37 students each class. Cluster random sampling was applied as the technique to take the samples after knowing the result of the mean score obtained from the students' previous scores.

Then, the researcher analyzed homogeneity population by using ANOVA. Therefore, the two classes were taken as the experimental class and the control class.

There were two kinds of data used in this research, namely primary data and secondary data. The primary data dealt with the students' scores of vocabulary taken from the vocabulary pre-test and post-test whereas the secondary data included the data from the English teacher of SMPN 7 Bondowoso taken by interview and the other secondary data included the documentation. This research used achievement test to measure the students' vocabulary achievement. Before administering the pre-test to the experimental and the control class, the researcher gave try out to one class from five classes which has the closest mean difference with experimental and control classes. Djiwandono (1996:18) states that try out is very important to do because of some reasons, those are: the validity of test, the reliability of test, and the difficulty index of test items. The researcher administered try out because based on the criteria of composing the test, a good test have to establish the validity, the reliability, and the difficulty index of the teacher-made-test. In order to generate good content validity, the test conducted in the research was adopted from the current curriculum and the English teacher's syllabus.

In addition, test reliability and difficulty index of test items were also important to be taken into account. The objective of test reliability was to know the consistency of the test result. From the calculation, it was found that the reliability of the whole test is 0.599. Saukah et.al (1997:211) state that result of analysis of reliability of the test indicates that the test items are valid and reliable if the reliability of teacher-made test is ≥0.50. Since the standard reliability of the teacher made test is 0.599 so that the test is reliable.

Furthermore, the difficulty index was measured because the criteria of good test items are not too difficult or not too easy for the students. According to Djiwandono (1996:141) the difficulty index of the test shows how difficult or easy the test items or the whole test that have been conducted. From the result, it was known that the range of difficulty index of try out for vocabulary test was from 0.43 up to 1. The criteria of difficulty index stated by Djiwandono (1996:141) is as follows:

> 0.00-0.19 = difficult
> 0.20-0.80 = fair
> 0.81-1.00 = easy

Based on the criteria of difficulty index, it found out that there were 10 test items from 40 test items which were too easy for the students consisted of nouns, adjectives, and verbs. Thus, the researcher had to choose 30 from 40 questions of the test items which fair enough. Then, the pre-test and post-Test were administered.

In conclusion, the try out was done to know the accuracy of time allocation and the clarity of test instruction. The time allocation for the students to do the test was 75 minutes for 40 test items. The students did not have problems with the time allocation because they did the

test within the available time. Besides, the instruction of the test was clear and understood by the students when they did the test so that the researcher did not need to extend or shorten the time allocation.

The primary data of this research that was the students' scores of vocabulary pre-test and post-test were analysed by using independent sample t-Test which is available on SPSS (Statistical Package of Social Science). In this research, t-Test was used to know the mean difference between two different independent groups namely: experimental and control class. The data was analysed quantitatively by using Independent Sample t-Test with 5% significant level (confidence interval 95%) and degree of freedom (df). The results of analysing data were used to know whether or not there is a significant effect of using Semantic Mapping Technique on the students' vocabulary achievement. The degree of freedom or Df= Nx+Ny-2. The result was consulted with t-table of 5% significant level. The hypotheses for the test were:

H_o : There is no significant effect of using Semantic Mapping Technique on the seventh grade students' vocabulary achievement in reading descriptive text at SMPN7 Bondowoso.

H_a : There is a significant effect of using Semantic Mapping Technique on the seventh grade students' vocabulary achievement in reading descriptive text at SMPN 7 Bondowoso.

The decision to determine the means between the two groups are the same was based on the following criteria:

a. If the probability (Asymp. Sig.(2-tailed)) ≥ 0.05, H_o is accepted.

b. If the probability (Asymp. Sig.(2-tailed)) ≤ 0.05, H_a is accepted.

RESEARCH RESULT AND DISCUSSION

This research was conducted in one meeting for vocabulary test as a pre-test, two meetings for the treatment, and one meeting for vocabulary test as a post-test. The research finding was based on the students' scores of vocabulary test. The vocabulary test was done to measure the students' vocabulary achievement after they were taught by using Semantic Mapping Technique.

The results of data analysis showed that Semantic Mapping Technique gave contribution to the students' vocabulary achievement at SMPN 7 Bondowoso. This could be seen from the result of statistical computation value of t-Test which was less than the value of t-table with significant level of 5% (0.000 < 0.05). It meant that the null hypothesis was rejected, while the alternative hypothesis was accepted. Regarding to the result of primary data analysis, it could be seen that the experimental class who was taught vocabulary descriptive text by using Semantic Mapping Technique got better score compared to the control class who was taught vocabulary descriptive text by using Memorizing Technique that usually used by the

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teacher. Therefore, it could be concluded that the use of Semantic Mapping Technique had a significant effect to the seventh grade students' vocabulary achievement in reading descriptive text at SMPN 7 Bondowoso in the 2013/2014 academic year.

Further, the effect of using Semantic Mapping Technique in teaching and learning vocabulary was supported the previous researchers which proved that Semantic Mapping Technique was able to improve the students' achievement in English. The previous study was done by Kurniasari (2007) in her classroom action research entitled "Improving the Second Year Students' Reading Comprehension Achievement at SMPN 1 Tapen Bondowoso". She proved that Semantic Mapping is an effective technique for teaching reading. It improved the students' reading comprehension achievement from the mean score of reading test 71.03 to 75.27. Another research that was conducted by Agustina (2011) entitled "The Effect of Using Semantic Mapping Technique on the Tenth Grade Students' Writing Achievement at MAN Jember in the 2010/2011 Academic Year" revealed that there is a significant effect of using Semantic Mapping Technique on the tenth grade students' writing achievement at MAN Jember in the 2010/2011 academic year. She also proved that the students in experimental class taught by using Semantic Mapping Technique got better score (80.679) than students in control class (71.00).

In this research, the use of Semantic Mapping as a technique helped the students to increase their vocabulary items. This research proved the expert' opinions which stated that Semantic Mapping is an effective technique in teaching English vocabulary. Further, Reutzel, and Cooter in Antonacci and O'Callaghan (2012:94) suggest the use of word maps with English language learners for vocabulary instruction because it offers a way for them to demonstrate and connect their prior knowledge to new concepts and, at the same time, serves as a useful tool to categorize information.

In addition, a semantic mapping can be used as a tool for discovering the conceptual relationships between vocabulary items. When the students were taught vocabulary by using Semantic Mapping Technique, it was the first time for them to learn about Semantic Mapping, but they did not feel any difficulties to follow the instruction given because they were interested with the new technique in learning vocabulary. In doing the exercises, the students did not face any difficulties because the test items were fair enough. The researcher used simple vocabularies which were familiar to the students. Besides, the test items were consulted with the English teacher of SMPN 7 Bondowoso. In the second meeting, the students understood better and they were more enthusiastic in learning vocabulary by using Semantic Mapping Technique.

The evidence of those different treatments could be seen from the results of the test. The mean deviation score of the post-test of the experimental class was greater than the post-test mean deviation score of the control class (76.28 > 68.70). Consequently, it gave effect to the result of

the t test formula. The value of Sig (2-tailed) is 0.000 or we can say that it is less than 0.05. If the value of Sig. (2-tailed) is less than 0.05, it indicated that the null hypothesis (H_0) was rejected whereas the alternate hypothesis (H_a) was accepted.

CONCLUSION AND SUGGESTION

Regarding the result of the hypothesis verification and the discussion, it could be concluded that there is a significant effect of using Semantic Mapping Technique on the seventh grade students' vocabulary achievement in reading descriptive text at SMPN 7 Bondowoso in the 2013/2014 academic year. In this research, experimental class (VII B) got better result than control class (VII D). Based on the statistical computation value the t-test was less than t-table (0.000 < 0.05).

Since Semantic Mapping Technique had a significant effect on vocabulary achievement, the researcher proposed some suggestions to the English teacher, the students, and the other researchers. The English teacher of the seventh grade of SMPN 7 Bondowoso should apply Semantic Mapping Technique especially in teaching vocabulary because Semantic Mapping is one of appropriate techniques for the teacher to teach the students vocabulary. Besides, it can help the teacher to modify her teaching technique so that the teaching and learning process more interesting for the students. Moreover, it is suggested that the students of SMPN 7 Bondowoso use Semantic Mapping Technique in learning vocabulary in order to increase and ensure long term memory of their vocabulary items. In addition, it is hoped that by using this technique the students will be easier to learn and collect new vocabulary items.

Hopefully, the result of this research can be used as a reference and information for the future researchers to conduct further research dealing with the use of Semantic Mapping Technique by using a different language skill and component, in different research area or research design for different level of students.

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