**IMPROVING VOCABULARY MASTERY OF THE SEVENTH GRADE STUDENTS THROUGH TREE DIAGRAM TECHNIQUE**

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**Abstract**

*The objective of this research is to investigate the effectiveness of tree diagram technique in improving the students’ vocabulary mastery. This research employed quasi-experimental research design, consisting of experimental and control group. The population is the seventh grade students and the sample is VIIA and VIIB consisting of 21 students for each. The researcher applied purposive sampling technique in selecting the sample. In collecting the data, the researcher used test (pre-test and post-test) as the research instrument. To analyze the data, the researcher used statistical analysis by applying t-test formula. The result of data analysis shows that the hypothesis of the research is accepted by regarding that the tcounted (4.134) was higher than the ttable (2.021) which the degree of freedom (df) of the table is Nx + Ny – 2 = 21 + 21 – 2 = 40 with the level of significance, 0.05. In conclusion, tree diagram technique can improve the vocabulary mastery of the seventh grade students.*

*Key words: Improving; Vocabulary mastery; Tree Diagram Technique*

**INTRODUCTION**

Vocabulary is a part of language learning that needs continuing growth and development by both native and non-native speakers beside grammar and pronunciation at junior and senior high schools. Vocabulary is the knowledge of a word which does not only imply a definition, but also imply how the word fits into the world contextually. As a result, the students should learn about words as they learn structure and practice the target language.

Vocabulary can defined as a powerful carrier of meaning and the knowledge of words and their meanings. This means that without establishing a strong vocabulary base, comprehension and use of a language will not be achieved. In addition, the students should be able to recognize words and know their meanings as well. Thus, when a student is effectively able to recognize and use a word in different contexts, to speak, to write, to pronounce the word well, she/he has the knowledge and the meaning of that words.

Wallace in Tunggala (2010:6) argues, “Vocabulary proficiently affects not only the students reading skills, but also their listening, speaking and writing skills as well. In listening, their vocabulary influences how much they understand whatever they listen. In speaking the word chosen affects how well they are speaking, the impression the make, how people reach them. In writing, their vocabulary determines how clearly and accurately they can express their ideas to others”. The statement means that the most influential English component to learn is vocabulary because it can affect the students’ ability in mastering other English components and even English skill. Additionally, vocabulary is a language component which enables people to be easy to build up words into a sentences in order to be able to understand a language.

Vocabulary is a component of language that contains all of information about meaning and how to use word in language. Vocabulary becomes the most important aspect in acquiring a language and mastering the foreign language. It is clear enough that everybody who learns a language as a foreign language that hope to know and master the vocabulary to improve his or her language skills. The students’ skill will increase if they have a good vocabulary. Vocabulary knowledge is important because it encompasses all the words. That is why we should know to access our background knowledge, express our ideas and communicate effectively, and learn about new concepts.

Vocabulary is one of the important elements in building up the students’ English skill. By mastering vocabulary, the students can communicate, think and express their ideas in English. Therefore, the learning of vocabulary is fundamental to support the students to master English because their ability in reading, speaking, writing and comprehending the subject is relatively determined by their vocabulary. Additionally, Alqahtani (2015:25) argues, “Vocabulary is the total number of words that are needed to communicate ideas and express the speakers’ meaning.” The statement means that the students should improve their vocabulary if they want to deliver their ideas or communicate effectively.

Based on the statement above, the students should learn many words in order to help them in mastering the four basic skills. It means that the students should have a large number of vocabulary so they can choose words used to communicate or express their ideas or feelings in various ways.

In oral and written communication, vocabulary has important role to support the

four language skills of English. Depdiknas (2006), in School-Based-Curriculum of Junior High School define that English language teaching in junior high school is aimed at enabling students to reach functional level in a sense they can communicate in spoken and written way to solve daily problems*.* Related to the statement above, the school based curriculum places English language learning as the way to express the students’ vocabulary mastery competences either in learning oral or writing expression in habitual action. This means that the general purpose of the curriculum is to encourage the students to use the four skills in English language in real communication. Furthermore, Depdiknas (2004), in Competence-based Curriculum argues that at the end of the Junior High Schools the students must have listening, speaking, reading, and writing skills of English by using an interesting technique based on their level, and the number of vocabulary must be more than a thousand words. This statement means that after three years of learning English at the junior high schools, the students are expected to be able to master vocabulary taught at their school. It means that vocabulary is very important for the students when learning the four skills in English. Because of that, the teachers of English should provide materials that are appropriate with the curriculum and find suitable technique that is expected to be very helpful to improve the students’ ability in English teaching and learning process. This means that English teachers should create efficient and effective technique which makes the students excited and enjoyable.

Based on the information obtained when conducting observation, the researcher found that the seventh grade students were still lack in vocabulary mastery. It was also difficult for the students to deliver their ideas because of vocabulary limitation. On the other hand, some students did not have self-confidence in speaking using that vocabulary. Then, the students’ knowledge of diction was insufficient yet. This means that having insufficient vocabulary made difficult for them to do their writing activities. Consequently, the students had difficulties to communicate one another or share their opinion. Therefore, the students should always improve their vocabulary. Vocabulary is not an easy thing to master. The students must be optimistic that they can master it. In facilitating the students in learning vocabulary, English teacher has to make an effort to build their students’ vocabulary in order to improve their opportunity to study the words during the teaching and learning process.

In teaching vocabulary, the English teacher can use approach, method or technique

as an attempt to build the students’ vocabulary. One of the efforts that the teacher can use to teach vocabulary is using an enjoyable technique. In this research, the researcher used tree diagram technique to solve those problems. Tree diagram technique is a technique that is useful to improve the students’ vocabulary mastery by adding some words in the branch of tree diagram technique. Tree diagram technique is not only enjoyable technique but also it can help the students to categorize the words from general to specific

Tree diagram is simply as one example of mind mapping. Whereas the mind map is a central idea surrounded by the branches of related ideas, tree diagram comes up with a diagram looks like a tree. Tague (2005) states that the tree diagram technique starts with one item that branches into two or more, and so on. It looks like a tree with trunk and multiple branches. It is used to break down broad categories into finer and finer levels of detail. Tree diagram helps the students move their thinking systematically from generalities to specifics. Tree diagram technique is an outlining technique which can be used to improve the organization of the words.

McGraw (2008:13) argues, “This type of tree diagram is helpful when you want students to find the main idea of a paragraph or section. The main idea or topic is written in the top box”. It means that tree diagrams have a main idea, which has interrelated to support the idea. Then, the students should analyze for information that demonstrates or supports that main idea or topic.

Shapiro (2001:2) defines, “Tree diagram can be used to represent the relationships between different factors in a problem. This strategy is most often used with problems where it is necessary to work out all possible combinations of the different factors in the problem.” For example, when we see a *cup*, our mind will quickly relate a word “*cup*” to other words such as *knife, fork, plate, glass, dishes, etc*. Using a tree diagram technique can help the students generate their idea to find out new vocabulary by using the tree diagram technique.

Based on the sources about tree diagram above, the researcher concluded that the procedures in teaching vocabulary uses tree diagram technique are first, the teacher gives an example about the topic. Second, the teacher provides the main words in tree diagram technique based on the topic, for example “Animal”. Third, the teacher asks the students to add a new word into some branch one by one comprehensively as they can like ant, cat, crocodile, dog, panda, eagle, etc. Principally, after the students connected the tree diagram technique, the English teacher asks the students to mention the meaning of the words and the pronunciations. The teacher does the steps expectantly the students not only learn the new words and their meaning but also learn how to pronounce it.

There are some advantages of tree diagram technique in teaching vocabulary. First, tree diagram technique helps students organize their ideas because the components of tree diagram are well connected and well arranged. Second, the tree diagram as a communication tool that explain details to others (Tague, 2005:501). It means that tree diagram serves as the guide for students so they can remember the words when they are going to write or speak. Because of that, it saves their time from wandering about what to write or speak. The last advantage is that it helps the students improve the quality of their vocabulary because they can do the fours of English skill.

Despite tree diagram has many benefits, it still has disadvantages that they are: First, students still has limited of words so they are cannot connect or link the branch of tree diagram as expected. Second, the students need more time to finish the tree diagram because of the students who has limited of words.

**METHOD**

The research design in this study is a quasi-experimental design. Ary *et al* (2010:316) state, “Quasi-experimental designs are similar to randomized experimental designs in that they involve manipulation of an independent variable but differ in that subjects are not randomly assigned to treatment groups.” This quasi-experiment went through pre-test, treatment and post-test. It aimed to observe the improvement of students’ vocabulary mastery through tree diagram.

The sample of the research was divided into two groups: One group as an experimental group got a treatment and another group was as a control group. The pre-test was given to both groups but only the experimental group was taught through tree diagram technique. The presentation of this research designed by Ary *et al* (2010:316) can be seen on Table 1.

Table 1. Pretest-treatment-Pos-test

|  |
| --- |
| Group Pre test Independent Variable Post test |
| E Y1 X Y2C Y1 - Y2 |

 The population of this research is the Seventh Grade Students of SMP Negeri 30 Sigi.

There are only two classes consisting of VIIA and VIIB in the school. Each class consisted of 21 students each. The total population was 42 students.

Therefore, it is necessary for the researcher to determine sampling technique in order

to limit the object of the research to easily conduct the research. Creswell (2012:142) argues, “A sample is a group of the population that the researcher plans to study for the generalizing about target population. In a ideal situation, you can select a sample of individuals who are representative of the entire population.” In this research, the researcher used purposive sampling technique by dividing them into the control group (VIIA) and the experimental group (VIIB) as the sample of research. The sample was chosen for the same teacher teaches those classes.

In this research, the variable is divided into the independent and the dependent variables. The independent variable was the use of tree diagram technique, and then the dependent variable was the students’ vocabulary mastery.

In conducting this research, the researcher used test as the instrument. The test was divided into pre-test and post-test which are similar in level of difficulties. Both were used to measure the students’ ability in vocabulary mastery and to find the effectiveness of using tree diagram technique. The pre-test was conducted to find out the prior knowledge of vocabulary mastery of the students and the post-test was to measure the students’ mastery after got the treatment.

Table 2. Distribution of the Test

|  |
| --- |
| No Kind of Test Number of Items Score of Each Items Total Score |
| 1 Multiple choice 20 1 10 |
| 2 Tree Diagram 30 1 30 |
|  Total 50 50 |

Treatment was the researcher’s opportunity to apply tree diagram technique in order to achieve the objective of the research. The treatment was conducted for eight meetings with different topic for each and it took 2x40 minutes.

To analyze score of the students’ result in the pretest and the posttest, the researcher presents the scoring rubric taken from KTSP 2006 in the following table:

Table 3. The Scoring Rubric

|  |  |  |
| --- | --- | --- |
| No | Explanation | Score |
| 1 | Correct answer | 1 |
| 2 | Wrong answer | 0 |
| 3 | No answer | 0 |

After the treatment has done, the result of test was analyzed in order to find out the students’ achievement and to investigate the effectiveness of tree diagram technique in learning vocabulary. The researcher analyzed the data statistically based on the following steps. First, the researcher computed the individual score by using the formula proposed by Arikunto (2006:308). Second, after getting the individual score, the researcher computed the students’ mean score and the square deviation of each group by using the formula (Arikunto, 2006:272). After getting the mean score of both experimental and control groups, the researcher analyzed the sum of squared deviation by using the formula proposed by Arikunto (2006:312). Finally, the researcher calculated the result of the mean score and the square deviation to find out whether there is a significant difference between the result of the experimental and control groups by using the formula purposed by Arikunto (2006:311).

**FINDINGS**

In order to conclude whether the students’ vocabulary mastery were improved or not, the researcher tested the students both before and after the treatment. The researcher analyzed the data obtained through test (pre-test and post-test). The data of the test were analyzed statistically by applying t-test formula. To find out the improvement of students’ vocabulary, the researcher gave test twice to the students before and after the treatment. The pre-test of both experimental and control groups was conducted on 29th September 2016 and the post-test was held on October 29 th November 2016. The pre-test was applied before the treatment in order to find out the students’ prior knowledge in vocabulary both the experimental and the control groups. The post-test was applied after the treatment in order to find out the significant difference between the students’ knowledge in vocabulary mastery before and after the treatment. After giving both tests, the researcher analyzed and compared the result.

 The researcher presents the result of the pre-test and the post-test of both experimental

and control groups. The test contained 50 items, classified into two parts; multiple choices (20 items) and completing tree diagram (30 items). Every item of the test was about nouns and verbs taught in the treatment. The students’ maximum score is 50. The result of the pre-test and the post-test of the experimental group can be seen in the following

table:

Table 4. Experimental Group’s Score on Pre-test and Post-test

|  |  |  |  |
| --- | --- | --- | --- |
| No | Initials | Maximum | Standard Score |
| Score | Pre-test | Post-test |
| 1 | ADI | 50 | 40 | 86 |
| 2 | AJI | 50 | 10 | 80 |
| 3 | AND | 50 | 14 | 76 |
| 4 | ARM | 50 | 30 | 78 |
| 5 | BER | 50 | 10 | 78 |
| 6 | DED | 50 | 14 | 76 |
| 7 | EFA | 50 | 20 | 78 |
| 8 | FET | 50 | 10 | 76 |
| 9 | FIT | 50 | 24 | 76 |
| 10 | GER | 50 | 20 | 78 |
| 11 | GIS | 50 | 14 | 80 |
| 12 | HEN | 50 | 20 | 80 |
| 13 | LAL | 50 | 34 | 78 |
| 14 | MIR | 50 | 34 | 76 |
| 15 | SEL | 50 | 24 | 78 |
| 16 | SEP | 50 | 10 | 76 |
| 17 | SUK | 50 | 20 | 82 |
| 18 | TRA | 50 | 24 | 76 |
| 19 | TRE | 50 | 80 | 96 |
| 20 | VEA | 50 | 30 | 78 |
| 21 | VON | 50 | 18 | 82 |
| Total Score | 500 | 1664 |

The table above shows that the students’ highest score in pre-test of the experimental

group is 80 and the lowest score is 10. These scores are compared to the minimum criteria used in the teaching English (75). It means that the score of students’ pre-test is poor. Meanwhile, the highest score of the experimental group in the post-test is 96 and the lowest score is 76. The computation above indicates that there is a significant change in the students’ score after the treatment. The result of pre-test and post-test of the control group can be seen in the following table:

Table 5. Control Group’s Score on Pre-test and Post-test

|  |  |  |  |
| --- | --- | --- | --- |
| No | Initials | Maximum | Standard Score |
| Score | Pre-test | Post-test |
| 1 | ADR | 50 | 22 | 66 |
| 2 | CHR | 50 | 30 | 64 |
| 3 | DES | 50 | 36 | 80 |
| 4 | DIE | 50 | 24 | 62 |
| 5 | DIN | 50 | 24 | 58 |
| 6 | FAC | 50 | 28 | 64 |
| 7 | FEB | 50 | 14 | 52 |
| 8 | FEL | 50 | 12 | 70 |
| 9 | GRI | 50 | 40 | 76 |
| 10 | HAI | 50 | 44 | 58 |
| 11 | IIT | 50 | 20 | 60 |
| 12 | IMM | 50 | 20 | 64 |
| 13 | IRM | 50 | 24 | 70 |
| 14 | KAT | 50 | 22 | 60 |
| 15 | PAT | 50 | 20 | 80 |
| 16 | SEL | 50 | 30 | 72 |
| 17 | SES | 50 | 22 | 74 |
| 18 | TEC | 50 | 22 | 74 |
| 19 | ULI | 50 | 20 | 68 |
| 20 | VIL | 50 | 28 | 54 |
| 21 | YUN | 50 | 12 | 68 |
| Total Score | 514 | 1394 |

The table above indicates that the highest score of the control group in the pre-test is 44 and the lowest score is 12. The data of pre-test shows that the students’ score is low. Meanwhile, the students’ highest score of the control group in the post-test is 80 while the students’ lowest score is 52. It shows that only two students got passing score, while others

failed.

After collecting and computing the score of the experimental and the control groups, the researcher continued to count the mean deviation and the square deviation. The result of mean deviation in the experimental group is 55.42 and the control group is 41.90. To analyze the data, the researcher has used the t-test formula.After getting the result of the mean deviation in the experimental group, the researcher computed the tcounted to find out the significant differences between the experimental and the control group. The score of the tcounted is 4.134. The researcher tested the tcounted and the table by using the level of significance of 0.05 with degree of freedom (df) of the table is Nx + Ny – 2 = 21 + 21 – 2 = 40 and the score of the ttable is 2.021.

**DISCUSSION**

The researcher conducted pre-test and post-test in order to find out whether tree diagram technique can improve the students’ vocabulary mastery or not. The researcher gave pre-test to find out the students’ prior knowledge before the treatment. After the pre-test, the researcher found that almost all of the students of the experimental and control group were lack of vocabulary. After conducting the pre-test, the researcher continued to give the treatment to the students of the experimental group for about eight meetings.

In doing the treatment, the researcher applied tree diagram technique in teaching vocabulary in terms of nouns and verbs to the students during teaching and learning process. Thus, the researcher gave the example of tree diagram technique in the classroom and the way in which the students complete it. At the beginning of the treatment, it is not easy for the students to complete the tree diagram technique. It happens because the students’ vocabulary is still lack. Also, they also do not know how to pronounce the words and their meanings. Because of that, the researcher tries to guide the students and practice the tree diagram to make the students easier in understanding the vocabulary by using tree diagram technique. They also have known how to pronounce the words and their meanings.

In fact, the students know nouns actually the things around them, for example: *school, rooms and family*. Furthermore, after the treatment, the students know and understand the unfamiliar nouns such as *profession, countable and uncountable noun.* Moreover, the students barely know about verbs. The students only know familiar verbs such as *go, cook* and *sleep*.However, after the treatment, the students understand unfamiliar verbs such as *cure, experiment* and *sail*.

 After the treatment, the researcher give post-test to the experimental and the control groups in order to find out whether the students’ vocabulary mastery has improved or not. Based on the result of the post-test, there is much progress and it shows that the students’ score of the post-test of the experimental group is higher than the students’ score of the control group. It can be proven by looking at the students’ post-test result. The result of the post-test of the experimental group shows that 21 students (100%) could pass the test and of the post-test in the control group shows that 3 student (14.28%) could pass the test.

In addition, the total score of the students of the experimental group is higher than the total score of the control group. It is because the use of tree diagrams technique in the teaching and learning process. By seeing the result, the use of tree diagram technique can improve the students’ vocabulary particularly nouns and verbs. Muriadi (2011) who conducted the same technique has supported the result of a significant improvement of the students’ vocabulary. Also, Tague (2005:501) argues that tree diagram as communication tool explain details to others. It means that tree diagram technique as the guide for the students to remember words. In conclusion, the result above reveals that there is a significant improvement after the treatment and it supports the hypothesis of this research.

**CONSLUSION AND SUGGESTION**

After collecting and calculating the data, it is concludes that tree diagram technique can improve the students’ vocabulary mastery. It is proved by looking at the result of the tcounted (4.134) which is higher than the ttable (2.021). It means that the hypothesis of this research is accepted.

In order to improve the quality of teaching English, the researcher gives some suggestions to the students, teachers, and other researchers. Firstly, the student’s can improve their vocabulary mastery by using this technique to communicate or share their idea during teaching and learning process. By using this technique, the students can find new words and understand well about the meaning of the words. Secondly, English teachers can use this technique to teach the students on not only vocabulary but also speaking or writing. Lastly, other researchers can use tree diagram technique in conducting research on different skill.

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