DEVELOPING VOCABULARY MASTERY OF THE SEVENTH GRADE STUDENTS THROUGH VOCABULARY TREE TECHNIQUE

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Abstract

The objective of this research was to find out the effectiveness of vocabulary tree technique in developing vocabulary mastery of seventh grade students of SMP Negeri 2 Una-una. The advantages of vocabulary tree technique are the students are interested in the material, therefore; the students develop their vocabulary mastery fast and remember the words easily, and the students can construct the sentences by using their own words. The research method used true experimental research design. The population of this research was the seventh grade students of SMP Negeri 2 Una-una and the sample was the seventh grade students of class A. The number of the sample was 28 students selected by using random sampling technique. The mean score of experimental class post-test was 33 and the mean score of control class post-test was 11. The standard error of the difference between two means was 2.342. The t-ratio was 8. The degree of freedom for an independent t-test was 54 and the row was found 2.000. The number 2.000 in column labeled .05 indicated that under a true hypothesis and 54 degrees of freedom a t-ration of ± 2000 or more would exist by chances 5 percent of the time. The observed 8 was greater than 2.342, which means that t-counted was higher than t-table. Based on this fact, the null hypothesis was rejected and the hypothesis was accepted because there was a significant difference between students learning vocabulary through vocabulary tree technique than those who are learning vocabulary through traditional technique. It is concluded that vocabulary tree technique has significant influence in developing vocabulary mastery of the seventh grade students at SMP Negeri 2 Una-una.

Key words: Developing; Vocabulary Mastery; Vocabulary Tree Technique; True Experimental; Research

INTRODUCTION

Learning a language means learning its vocabularies. In general, no language acquisition is possible without understanding the vocabulary, either in the first or the second

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language (Kweldju, 2004). Building up vocabulary for children ensures that they come across as smart and focuses in future conversations. It means that vocabulary plays a very important role in communication. Tarigan (1986:3) states: "The quality of someone's language skills obviously depends on the quantity of vocabulary that he/she knows. The more vocabularies we have, the more possibilities we have to speak well." This statement asserts that the ability to listen, to speak, to read, and to write a good English is influenced by people's vocabulary mastery. The more words they know, the more easily they understand oral or written words.

Vocabulary is very important in learning English because it is the foundation to learn other skills or components of language. We cannot catch the messages from others without having enough stock of vocabulary. Harmer (1991:153) states,

> We must have something to say, we have meaning that we wish to express and need to have stock of words that can describe how you feel at this moment, you have to be able to find a word which reflects the complexity of your feeling.

Vocabulary is an important part of nearly any subjects at schools. The number of vocabulary items that must be taught to the students of Junior High Schools is stated in the Competence-based Curriculum (2004). This curriculum states 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.

Mastering vocabulary is very important for the students. A student who learning English or a certain language should know the words since the mastery of vocabulary can support them in speaking when communicating to people. Vocabulary can help students write and translate the meaning of words. If they do not know the meaning of words, they will not be able to speak, write, and translate anything in English. The students can gain progress in English if they master the vocabulary.

Vocabulary is the first and foremost important step in language acquisition. However, the students do not find themselves comfortable with the foreign language in the classroom. They think that English is a hard subject to study because they still lack of vocabulary which causes the result of their achievement of vocabulary knowledge decreasing or reducing. The

lack of vocabulary mastery has become one of the common learning problems which were usually encountered by both teacher and student. The students were demanded to memorize the number of words, but they failed. They just wrote the new vocabulary and found its meaning in Indonesian. One factor causing this problem during the teaching learning process was that the students were not interested in the technique and the activities.

Many teachers have tried various teaching techniques to help students develop their vocabulary in order to make students understand and develop their vocabulary mastery easily. In this case, the researcher tried to prove a technique that was suitable to the students' level which can make the students enjoy, active, and easy to understand the material. The researcher should look for and use an interesting technique which can help the students enjoy, feel easy, understand, and remember the lesson.

Heading the description above, the researcher proposed a vocabulary tree technique to minimize the students' problem. Vocabulary tree technique is a way to generate ideas in a tree. It is a kind of technique that can be helpful for the students to find out new vocabulary. In this technique the students will be asked to make a diagram or a tree to represent new vocabulary that has association with main word. By using the vocabulary tree technique, the students will narrow down their ideas more easily. This technique can help the students understand new words and their meanings in groups that belong to the same relation. The reason why the researcher chose the vocabulary tree technique as the medium to conduct research was that by applying this technique the students are able to memorize many words easily and enjoyably.

The vocabulary tree or a spider gram is a way to help students find a new vocabulary by associating the word. The vocabulary tree helps students provide context. Harmer (2007:93) states, "A way of exploiting this is to get students in the class build their own vocabulary tree". Therefore, it can help the students to generate their ideas to find out the new vocabulary by seeing the vocabulary tree. The teacher chooses this technique because the vocabulary tree shows a link or connection between a word to other new words more effectively.

The researcher formulated the research question: *Is there any significant difference between the students learning vocabulary taught through the vocabulary tree technique and those who are not taught through the vocabulary tree technique?* The objective of this research was to investigate whether there is a significant development or not between the students'

learning vocabulary taught through the vocabulary tree technique and those who are not taught through the vocabulary tree technique.

METHODOLOGY

The researcher used true-experimental research design. In this case, in conducting the research, the researcher used two classes: experimental and control class. The researcher gave the same materials to both classes through different techniques. The experimental group was taught through vocabulary tree technique but the control group was not. Furthermore, both classes got the same post test.

Ary, et.al. (1979) proposed the design of post test:

Groups	Independent Variables	Post-test
Experimental : A	X	Y2
Control : B	-	Y2

The population of this research was the seventh grade students of SMP Negeri 2 Una-una and the sample was the seventh grade students class A. The number of the sample was 28 students selected by using random sampling technique.

This research has two variables; they were dependent and independent variables. The independent variable was the vocabulary tree technique while the dependent variable was the vocabulary mastery of the seventh grade students of SMP Negeri 2 Una-una.

In relation to this research, the researcher used three kinds of research instruments to collect the data; they were the description, the reliability and the validity of the test. In the description of the test, the test consisted of four categories. They were relevance, spelling, number of branches, and language used. The reliability of the test was used to assess the students' scores. If the test does not seem to offer reliable categorization of the students, the research should add more items. Furthermore, the validity of the test was used to measure how well the individual student has mastered the particular skill or course of study. The test was valid to measure the students' ability in completion tests.

The researcher gave the post-test both experimental class and control class. Before giving the post-test, the researcher conducted treatment in eight meetings. The post-test was given to the students to find out the vocabulary mastery of the students after the treatment. The post-test consisted of 40 items. The form of the test asked the stdents to complete the vocabulary tree and each item was scored 1. The scoring system can be seen in the following table:

Table 1: The Scoring System of the Test

No.	Kinds of Test	Number of Items	Score of Each Correct Answer	Maximum Score
1.	Completion Test	40	1	40

Next, the researcher used the formula proposed by Ary, et al. (2010:108-109) in order to compute the mean scores of the students of each class. The formula used is as follows:

$$X = \frac{\Sigma \bar{X}}{N}$$

Where:
X = mean
Σ = sum of
X = scores in a distribution
N = number of students

When the value of mean of each group was obtained, the researcher proceeded to compute the value of deviation to get the value of standard error. The formula stated below was quoted from Ary, et al., (2010:115 - 171).

a. Formula of Deviation

$$x = X - \bar{X}$$

Where:
x = deviation score
X = raw score (student's score)
$\bar{X}$ = mean

b. Formula of Standard Error

$$S_{\overline{X}_1 - \overline{X}_2} = \sqrt{\frac{\sum x_1^2 + \sum x_2^2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}$$

Where:

$S_{\overline{X}_1 - \overline{X}_2}$ = standard error of the difference between two means

n_1 = number of cases in experimental class
n_2 = number of cases in control class
$\sum x_1^2$ = sum of the square deviation scores in experimental class
$\sum x_2^2$ = sum of the squared deviation scores in control class

After getting the value of the standard, the researcher easily obtained the *t-counted* in order to analyze and to answer the research hypothesis of this study. In line with the aim, the following formula was proposed by Ary, et al. (2010:171) as follows:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{S_{X_1 - X_2}}$$

Where :
$\overline{X}_1$ = mean of experimental class
$\overline{X}_2$ = mean of control class
$S_{x_1} - x_2$ = standard error

RESEARCH FINDINGS

The researcher administered a post-test. The post-test was done to the experimental and the control group. It was carried out in order to prove that the ability of the students to learn vocabulary mastery could be developed after the treatment. The results of this post-test were completely presented in the table.

Table 2: The Computation of the t-Value for Two Sample Means

No	Initials	X_1	x_1	x_1^2	Initials	X_2	x_2	x_2^2
	Control Group (Non-Vocabulary T.T)				**Experimental Group(Vocabualry T.T)**			
1.	Abd M	24	+ 14	196	Brhn	40	+ 7	49
2.	M. Isr	20	+ 10	100	Nfd	40	+ 7	49
3.	M. Alg	19	+ 9	81	Abd. R	40	+ 7	49
4.	Isn	15	+ 5	25	Fdl	40	+ 7	49

5.	Mus	15	+ 5	25	Snt	40	+ 7	49
6.	Akr	14	+4	16	Fdy	40	+ 7	49
7.	Tas	13	+ 3	9	Mry	39	+ 6	36
8.	Ris	12	+ 2	4	Zul	39	+ 6	36
9.	Tfk	12	+ 2	4	Ain	38	+ 5	25
10.	Yas	12	+ 2	4	I Rah	38	+ 5	25
11.	Nur	12	+ 2	4	M. Dn	38	+ 5	25
12.	Raf	10	+ 0	0	Okt	37	+ 4	16
13.	Ulla A	10	+ 0	0	Rah	36	+ 3	9
14.	Arf	10	+ 0	0	Ram	35	+ 2	4
15.	Fer	10	+ 0	0	Abd. F	35	+ 2	4
16.	Fdl	10	+ 0	0	Bhr	34	+ 1	1
17.	Nurw	9	-1	1	Abd. H	34	+ 1	1
18.	Fat	9	-1	1	Fdh	31	- 2	4
19.	Ramt	9	-1	1	Ma	30	- 3	9
20.	Sri R	9	-1	1	Raf	30	- 3	9
21.	M. Hm	8	-2	4	Zarl	27	- 5	25
22.	M. Rm	7	-3	9	Ros	27	- 5	25
23.	Lbr	7	-3	9	Sak	25	- 8	64
24.	Fad	6	-4	16	Ftr	24	-9	81
25.	Rus	6	-4	16	M. Ad	24	-9	81
26.	Har	5	-5	25	Ydr	23	-10	100
27.	Irw	5	-5	25	Null	23	-10	100
28.	Fer M	5	-5	25	M. Al	19	-14	196
	$\sum x_1 = 303$		$\sum x_1^2 = 601$		$\sum x_2 = 926$			$\sum x_2^2 = 1170$
	$N_1 = 28$				$N_2 = 28$			
	$\bar{X}_1 = 11$				$\bar{X}_2 = 33$			

The table shows that the mean score of control class was 11, while the mean score of experimental class was 33. Undoubtedly, there was a difference. In order to find out the difference between the groups, the researcher computed the standard error of the difference between two means.

To find out the standard error of the difference between two means, the researcher used the formula recommended by Ary, et. al. (1979:147)

$$S_{X_1 - X_2} \sqrt{\frac{\sum x_1^2 + \sum x_2^2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

$$S_{X_1 - X_2} \sqrt{\frac{601 + 1170}{28 + 28 - 2} \left(\frac{1}{28} + \frac{1}{28}\right)}$$

$$= \sqrt{\frac{1771}{54}} \left(\frac{2}{28}\right) = 1771 \times 2 = 3542; \quad 54 \times 28 = 1512. \text{ So, } \frac{3542}{1512} = 2.342$$

$$= 2.342$$

After getting the standard error of the difference between two means, the researcher continued to count the t-ratio or t-counted score to figure out whether the research hypothesis was accepted or rejected. The computation was presented in the following:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sum x_1^2 + \sum x_2^2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$t = \frac{33 - 11}{\sqrt{\frac{601 + 1170}{28 + 28 - 2} \left(\frac{1}{28} + \frac{1}{28}\right)}}$$

$$t = \frac{33 - 11}{\sqrt{\frac{601 + 1170}{54} \left(\frac{2}{56}\right)}} = \frac{22}{1.17} = 18.80$$

Based on the previous calculation, the *t*-ratio was

$$\frac{18.80}{2.350} = 8$$

t-counted = 8

After analysing the data of the test by using t-test formula, the result of the data shows that t-counted was 8 applying 0.05 level of significance with 54 degree of freedom: 28+28-2= 54, the researcher found that t-counted (8) was greater than the t-table (2,000). It means that the null hypothesis is rejected and the research hypothesis is accepted. There is a significant difference between the students' learning vocabulary through vocabury tree technique than those who learnt vocabulary through traditional technique. In the other words, teaching vocabulary through vocabulary tree technique is effective.

DISCUSSION

Based on the result of post-test of each class, the researcher found that the students' vocabulary mastery concerning with nouns, verbs, and adjectives of the experimental class developed by using vocabulary tree technique. The effectiveness of vocabulary tree technique in developing vocabulary mastery of the students can be seen in the percentages of students' score in experimental class: the students who got score 35 – 40 are 15 (53,5%), who got score 25 – 34 are 8 (28,5%), and the students who got score 15 – 24 are 5 (18%). Applying vocabulary tree technique provides positive effect toward teachers' ability in developing students' vocabulary mastery. Vocabulary tree technique is the appropriate technique. During the treatment, the students felt enjoyed. They got active and more confidence. They gave full attention to the material. The teaching learning processes challenged the students because they felt that certain words were important and necessary. These situations effectively develop the students' vocabulary mastery because vocabulary tree technique helps the students memorize the words easily.

The vocabulary tree technique is an interesting technique. It is fun for the students as Podchun (2010) states that the vocabulary tree is one of the different ways to increase students' vocabulary; the students can really enjoy it because it is a good way to memorize the words. They keep the vocabulary tree on their imagination.

CONCLUSION AND SUGGESTION

Based on the findings and analysis, it can be concluded that the use of vocabulary tree technique in developing vocabulary mastery is very useful, because there is a significant difference between the students learning vocabulary taught through the vocabulary tree technique and those who are not taught through the vocabulary tree technique. It also improves student's ability in writing, speaking, listening and reading (language skills). Vocabulary tree technique creates interesting activities in the language learning process. These statements were proven by referring to the standard error of the difference between the two means 2,342. The t-ratio was 8. The degree of freedom for an independent t-test was 54 and at the 0.05 level of significance the row for 54 degree of freedom was found 2,000. On the other hand, the t-counted was greater than the t-table. This means that the null hypothesis was rejected and the hypothesis was accepted because there was a significant difference between students' learning vocabulary through the vocabulary tree technique than those who learnt vocabulary through traditional technique. In conclusion, the students' vocabulary mastery can be developed through the application of vocabulary tree technique.

From the conclusion above, the researcher has several suggestions that might be useful for the English teachers and students. Firstly, in teaching and learning process, teachers as the facilitators should ask the students more active in the classroom. Secondly, Teaching vocabulary through vocabulary tree technique is able to make the students more active in teaching learning process. Then, it is better if the teacher regularly gives homework to the students. For the students, they should learn seriously and manage their time to learn at home in order to achieve the maximal achievement in developing vocabulary mastery. The last is in using vocabulary tree technique; teachers need to provide the main word clearly in order to attract students' attention about the materials' given.

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