The Use of Media for Increasing the Vocabulary of EFL Learners

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Abstract- Using media in teaching foreign language especially English vocabulary for junior high school students obviously help them improve their learning achievement. This study is focused on the use of various media in improving students’ vocabulary. It is an experimental study done to the second-grade students of a junior high school in Kupang, Indonesia. The quantitative method of analysis is used in presenting the data. Based on the calculation using the t-test formula, it is found that the use of various media in teaching English vocabulary improved the students’ learning achievement. It is proved by the result of the t-test on the treatment group’s pre-test and control group. The result of the pre-test was 1.152 lower than the result of the t-test of the treatment group’s post-test and the control group’s post-test was 4.84. Based on the data found that has been analyzed, it may be concluded that teaching English using various media improved students’ learning achievement since the result of the t-test is 4.84 which is higher than the value of the t-table, 2.048. More experimental studies need to be conducted to provide more information about the use of the media because students’ background of language competencies is suspected to take effect during the treatment.

Keywords: media; vocabulary; teaching and learning; EFL

I. INTRODUCTION

English is a compulsory subject in Indonesia from junior high schools up to universities. Therefore, the government provides a curriculum relating to learning English as guidance for English teachers to be used in their instructional process. The implementation of curriculum affects the students learning achievement. As an example, in the previous curriculum, students tend to listen to the teacher’s speech from the beginning until the end of the instructional process. Students are more passive because the teacher does not give chance to the students to share the material that is being discussed. One of the real facts has been found that there are many students at a junior high school in Kupang who are not interested but are bored with learning English. This situation occurred because of the lack of instructional media, the creativity of the teacher who teaches the students, and monotonous teaching with a long duration. Since media has an important role making learning becomes more real or concrete. Media helps teachers to be creative in their teaching. In order to make students interested in learning English, the use of media in teaching-learning is important for stimulating students in classroom activities.

Criticos (1996: 11) says that media is an instrument used by teachers to give information when the teacher is teaching. In the context of learning English as a foreign language in Indonesia, the ability to master English is a problem because it is not used in everyday conversation for most students. Although there are several schools implementing an international curriculum that use English as the medium of instruction in class. Some schools with the national curriculum also set English as the language of instruction.

Knowledge of vocabulary is a key point of communicative competence and learning a language. One of the obstacles faced by learners in learning and mastery is the lack of vocabulary) because it causes students afraid in mastering listening, reading, speaking, and writing (McCarten, 2007; Hiebert & Kamil,2005; Benu, 2018). Studies on this topic revealed that students are afraid to speak because of vocabulary restrictions. Relating to the learning process, students are having difficulties remembering the vocabulary, and the learning environment has made students feel uncomfortable.

Students with various backgrounds of language competencies become a challenge for the teacher to deliver the material. Some
students find this lesson difficult to understand, especially students who have never studied English at the previous level. There have been many studies relating to teaching and learning vocabulary in Indonesian schools. Studies on this topic show that teaching media is one of the keys to a successful English classroom (Wirawan, 2020; Roistika, 2020; Siregar, et.al, 2021; Rasman, 2021; Sabata & Kantala, 2021; Suardi & Sakti, 2019; Panjaitan, et. al, 2021). Those studies also show that young learners easily feel bored if they are taught by using conventional teaching methods, therefore the teachers have to be creative in designing the teaching process. One of the ways can be done by teachers in order to make their teaching become fun is by providing good media. The use of learning media in the teaching and learning process can generate desire, interest, motivation, and stimulation of learning activities, and provide a psychological influence on foreign language learners.

Learning English at school still uses conventional learning media because of the limited learning facilities so students do not understand and feel bored with the learning atmosphere in class. Preliminary observations show that the teacher only teaches English according to the book used without developing interesting teaching techniques and sometimes there are even errors in the pronunciation of vocabulary. This could be related to teaching competence. The English teacher only teaches English vocabulary using the lecture method and only uses the blackboard without using learning media, either conventional or technology-based. They also do not use visual aids to support the learning and learning process so students cannot understand vocabulary properly because the words they learn are not presented visually.

Research has been done with specific media to see how media change of effecting learners’ language competencies. However, those studies are presented descriptively because the data were obtained through interviews and questionnaires.

This paper is the result of research based on the thesis statement that the low mastery of students’ vocabulary in English in general is influenced by various factors including lack of media in teaching vocabulary. This is an experimental study using various media especially visual media and the result is presented quantitatively. It is assumed that teaching vocabulary by using various media can make students more attractive, enjoy, and interested on the learning-teaching process. So, the media helped the students to improve their vocabulary achievement. Quantitative analysis will show the fact based on the classroom situation.

II. METHODS

This is an experimental study done on the second-grade students of a Junior High School in Kupang, Indonesia. Students were divided into two groups using the randomized sample technique. One group was the treatment and the other was the control group. Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity, (Kothari, 2004: 3; William, 2009: 128)). The instrument used in this research to gather the data was the test. The treatment group, which consist of 15 students, was taught vocabulary using various media. While, the control group, which also consist of 15 students we taught in a traditional way. Pretest and posttest were applied to both groups in order to see the effect. Both groups were also taught using the same material on vocabulary four times. The result of the test is taken as the research data and being analyzed quantitatively using the t-test formula.

III. RESULT AND DISCUSSION

The result of the data analysis is presented here in three parts, namely the result of the pretest, the result of the post-test, and the mean significant to see the effect of the treatment.

A. Result of pre-test

The data in table 1 below shows that students’ scores in the experimental group were various, some get high scores and several students get lower scores. The result of the students’ scores in the pretest is seen in the
There were two steps to follow to get the final scores that is computing the mean scores and the standard deviation of both experimental and control groups.

**Step 1.**

Computing the mean scores of the experimental and control groups pre-test using the following formula:

\[ M = \frac{\sum X_s}{N} \]

The mean difference of both experimental and control groups by using the following formula:

\[ M = \frac{\sum E - \sum C}{N} \]

\[ X = X_Ma - X_Mb \]

The computation process is as follows:

\[ X_{Ma} = \frac{\sum a}{Na} = \frac{660}{15} = 44 \]

\[ X_{Mb} = \frac{\sum b}{Nb} = \frac{630}{15} = 42 \]

So, the mean score of the experimental is 44. The control is 42 and the mean of the difference between both groups is 2. It means that the mean scores the of experimental are higher than the control group.

**Step 2:**

The computation of standard deviation of treatment and control group, the writer began by obtaining the standard deviation of the treatment group as shown in the following table:

<table>
<thead>
<tr>
<th>Xa</th>
<th>Xa</th>
<th>XMa = Xa</th>
<th>( \sum Xa^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>-4</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>-14</td>
<td>196</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>6</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>-4</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>16</td>
<td>256</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>16</td>
<td>256</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>6</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>16</td>
<td>256</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>16</td>
<td>256</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>-14</td>
<td>196</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>-24</td>
<td>576</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>-4</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>-4</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

\[ \sum a = 660 \]
\[ \sum Xa = 0 \]
\[ \sum Xa^2 = 2960 \]

\[ N_a = 15 \]
\[ X_a = 660 \]
\[ XMa = \frac{\sum Xa}{Na} = \frac{660}{15} = 44 \]
\[ Nb = 15 \]
\[ \sum Xb = 630 \]
\[ \sum Xb^2 = 2960 \]

Where:

- \( N_a \) : Number of samples in the experimental group
- \( X_a \) : The result of the experiment group test
- \( X_Ma \) : The mean of the experimental group
- \( \sum X_a \) : Sum of the value of the experimental group
The data analysis shows that the value of t-test obtained of the pre-test score of both groups is 1.152. It means that the mean difference between the two classes is 1.152. Then, to find out whether the difference is significant, the value of t-obtained and the t-observed in the t-distribution table is compared using the formula \((n_a+n_b-2)\) or \((15+15-2)\). The result is 28 as the degree of freedom (df) associated with the value of t-observed in this analysis. The t-table significance 0.05 or 5% (see the t-table). Since, the number of 28 is not listed in the degree of freedom in t-table distribution, it is estimated that the number 28 falls between 28-30 and the significance level of 5% is found in 2.048.

### B. Result of post-test

The result of the experimental and control group for the post-test are presented in the following table:

**table 4: The result of the post-test of the experimental group and control group**

...
Data in the table shows that the standard scores of the experimental group are 40-90 and the control group are 40-70. There are four students got lower score then 60 in the experimental group, and six students got lower score than 60 in control group.

**Step 1:**

The computation of the mean scores of both groups post-test was calculated using the following formula:

$$M = \frac{\sum X_a}{\sum a}$$

The mean difference of both experimental and control groups by using the following formula:

$$X = M_{xa} - M_{xb}$$

The computation process is as follow:

$$XM_a = \frac{\sum X_a}{na} = \frac{950}{15} = 63,33$$

$$XM_b = \frac{\sum X_b}{nb} = \frac{830}{15} = 55,33$$

$$X = XM_a - XM_b = 63,33 - 55,33 = 8$$

The result of the calculation shows that the mean difference of both groups is 63,33 for the mean score of the experimental group 55,33 and control is 8. Therefore it is clear that the mean differences of the control groups were lower than the experimental groups.

**Step 2:**

Computing the standard deviation of the experimental and control group. It started by obtaining the standard deviation of the mean of experimental group as shown in the table below:

**Table 5: Standard deviation of the experimental posttest**

<table>
<thead>
<tr>
<th>$X_a$</th>
<th>$X_a - XM_a$</th>
<th>$X_a^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>-23.33</td>
<td>544.29</td>
</tr>
<tr>
<td>40</td>
<td>-23.33</td>
<td>544.29</td>
</tr>
<tr>
<td>50</td>
<td>-13.33</td>
<td>177.69</td>
</tr>
<tr>
<td>50</td>
<td>-13.33</td>
<td>177.69</td>
</tr>
<tr>
<td>60</td>
<td>-3.33</td>
<td>11.09</td>
</tr>
<tr>
<td>60</td>
<td>-3.33</td>
<td>11.09</td>
</tr>
<tr>
<td>60</td>
<td>-3.33</td>
<td>11.09</td>
</tr>
<tr>
<td>70</td>
<td>6.67</td>
<td>44.49</td>
</tr>
<tr>
<td>70</td>
<td>6.67</td>
<td>44.49</td>
</tr>
<tr>
<td>70</td>
<td>6.67</td>
<td>44.49</td>
</tr>
<tr>
<td>90</td>
<td>26.67</td>
<td>711.29</td>
</tr>
<tr>
<td>90</td>
<td>26.67</td>
<td>711.29</td>
</tr>
</tbody>
</table>

$$\sum a = 950 \quad \sum X_a = (0,05) \quad \sum X_a^2 = 3,133.35$$

$$N_a = 15 \quad X_a = 1160 \quad XM_a = \frac{\sum X_a}{Na} = \frac{950}{15} = 63,33$$

$$\sum X_a = 0,05 \quad \sum X_a^2 = 3,133.35$$

**Where:**

- $N_a$: Number of sample in Experimental group
- $X_a$: The result of Experimental group test
- $Xm_a$: The mean of Experimental group
- $\sum X_a$: Sum of the value of the Experimental group
\[ \sum X_a^2 \]: Sum of the square value of the Experimental group

The next is the standard deviation of mean of control is presented in the following table:

### Table 6: The standard deviation of the control group’s posttest

<table>
<thead>
<tr>
<th>( X_b )</th>
<th>( X_b \cdot X_M = X_b )</th>
<th>( \sum X_b^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>-15,33</td>
<td>235,01</td>
</tr>
<tr>
<td>40</td>
<td>-15,33</td>
<td>235,01</td>
</tr>
<tr>
<td>40</td>
<td>-15,33</td>
<td>235,01</td>
</tr>
<tr>
<td>60</td>
<td>4,67</td>
<td>21,81</td>
</tr>
<tr>
<td>50</td>
<td>-5,33</td>
<td>28,41</td>
</tr>
<tr>
<td>50</td>
<td>-5,33</td>
<td>28,41</td>
</tr>
<tr>
<td>50</td>
<td>-5,33</td>
<td>28,41</td>
</tr>
<tr>
<td>70</td>
<td>14,67</td>
<td>215,21</td>
</tr>
<tr>
<td>60</td>
<td>4,67</td>
<td>21,81</td>
</tr>
<tr>
<td>60</td>
<td>4,67</td>
<td>21,81</td>
</tr>
<tr>
<td>60</td>
<td>4,67</td>
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<tr>
<td>70</td>
<td>14,67</td>
<td>215,21</td>
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<td>60</td>
<td>4,67</td>
<td>21,81</td>
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<td>4,67</td>
<td>21,81</td>
</tr>
<tr>
<td>60</td>
<td>4,67</td>
<td>21,81</td>
</tr>
</tbody>
</table>

\[ \sum b = 830 \quad \sum X_b = 0,05 \quad \sum x_b^2 = 1373,35 \]

Where:

- \( N_b \): Number of sample in Control Group
- \( X_b \): The result of Control Group test
- \( X_M \): The mean of Control Group
- \( \sum X_b \): Sum of the value of Control Group
- \( \sum x_b^2 \): Sum of the square value of the control Group

### Step 3:

Applying t-test formula to the post-test gained scores for both classes. The provided in the following result:

a.) The Experimental Group

\[ N_a = 15 \quad M_a = 63,33 \quad \sum X_a^2 = 3133,35 \]

b.) The Control Group

\[ N_b = 15 \quad M_b = 55,33 \quad \sum X_b^2 = 1373,35 \]

So the \( t_{\text{calculation}} \) of this data is:

\[
t = \frac{M_a - M_b}{\sqrt{\frac{\sum x_a^2}{na} + \frac{\sum x_b^2}{nb}}}
\]

\[
t = \frac{63,33 - 55,33}{\sqrt{\frac{3133,35}{15} + \frac{1373,35}{15}}}
\]

\[
t = \frac{8}{\sqrt{88,88888888888889}}
\]

\[
t = 4,84
\]

The calculation using t-test formula proved that be mean the difference between the post-test scores of both treatment and control groups is 4.84. This means that the mean difference between the two classes is 4.84. As in the pre-test, t-obtained is compared to the value t-table, it shows that 4.84 is higher at the level of significance 0.05 for the degree of freedom of 28, since the t-table value is found between 2.048.

Based on the calculation, the use of various media in teaching English was effective, since the t-test score is higher than the value of t-table (df) 28 and the level of significance is 0.05 or 5%. Based on the theory that if the t-test score < t-table, the null hypothesis is accepted but the t-test score > t-table score, then the alternative hypothesis is accepted. This can be proved by looking at the result of the computing system which shows that the value of the t-test is 4.84 higher than the value of t-table which is 2.048. This means that teaching English using various media improves the students’ learning achievement.

### 3.2 Discussion

Vocabulary is one of the obstacles to English mastery, both receptive and productive skills. Many students are said to face difficulties to understand English texts and answering reading questions because they lack vocabulary (Sutrisna, 2021). Some students...
have difficulty memorizing and understanding vocabulary because they are influenced by Indonesian or the mother tongue they use. Even though learning vocabulary is a challenge for EFL learners but the strategy to use various media as teaching and learning aids can overcome these challenges (Sanusi, Safitri & Sabar, 2021).

Learning media in general is a component of learning resources or physical vehicles that contain instructional material in the student's environment, which stimulates students to learn. The result of the study as has been presented has proved that using media is effective in improving the students' vocabulary learning achievement. This shows that the treatment carried out using these media can have a positive impact on EFL learners than without using these media. Nevertheless, it needs to make a few things clear about the result, namely students, teachers, and teaching and learning media. These three factors play important role in achieving the objective of the activity.

Teaching English to students in Indonesia seems to be a hard task because English is a foreign language. The teacher must be able to choose teaching and learning methods, especially for teaching vocabulary. Teachers can also use media to facilitate students in receiving learning material so they don't get bored in the teaching and learning process. English teachers always need additional teaching materials to help students imagine their ideas. In addition, teaching material can give students ideas to remember more easily and stimulate students to learn. Visualization is the best way to teach new words, such as video, flashcards stick pictures, pictures, flashcards, etc. So, students can receive learning material very well.

Teaching and learning media help EFL learners to achieve better objectives. Teaching and learning media in this digital era have various option and is available offline and online. The results of the studies show the effectiveness of increasing the vocabulary skills of EFL learners even though it has several obstacles such as internet problems (Meidasari, 2016; Kanellopoulou & Giannakouloupolos, 2021; Pujiani, et., al., 2022; Menotek & Benu, 2022). Besides, English in public spaces as authentic material for EFL learners to learn English and can be used by teachers in English classes (Beeh, et.al., 2022; Tunliu, et.al., 2022; Benu, 2023). Teachers need to build their awareness and equip them with strategies so they can learn on their own.

The choice of selecting a particular teaching method will affect the appropriate type of instructional media, although there are still various other aspects that must be considered in selecting media, including learning objectives, types of assignments and responses expected by students, including their characteristics. In addition, the choice of selecting teaching and learning media is an important factor in improving vocabulary mastery and other basic skills. Several factors to be considered are students' cognitive abilities, background knowledge, level of self-confidence, basic language skills, interest in learning, and motivation to learn

IV. CONCLUSION

Based on the data analysis, it is clear that the use of various media in teaching-learning vocabulary is very significant. It also shows that the use of media have some benefit for students. Learning media is functions as a tool for teaching that also influences the learning environment that is laid out and created by the teacher.

A variety of media can be implemented in teaching other English skills. During the class, treatment is also observed that almost all the students enjoy the class. Finally, the variety of media is one of the ways to get the students' participation in the teaching-learning process. Awareness, discipline, and self-motivation of an EFL learner play an important role in mastering vocabulary. Vocabulary learning can not only be done in the classroom but also with practice outside the classroom. EFL Learners must build their learning strategy, especially vocabulary development. In the digital era, it requires students to adapt learning media to develop vocabulary enrichment. Teacher support will have a very significant effect on language learning, not only vocabulary but all the required competencies. The existence of cooperation between teachers and students including the use of various learning media can achieve learning goals
perfectly. The variety of media is suggested here because the use of a single media will be affecting the students’ attention

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