CHAPTER IV
RESEARCH FINDING AND DISCUSSION

This chapter discusses about the data’s description of research that consists of validity testing, reliability testing, normality testing of the test, pre-test data, post-test data, analyzing the data and discussion of research finding.

4.1 Research Finding

The data of this research was collected by using the test instrument. The test had 30 items which contained the word of the material in the fifth grade of elementary school. The test was multiple choices test.

To gain the data of this research, I have given the test as try out test to the students at the same grade of elementary school.

4.1.2 Testing The Validity of The Test

In the testing validity of the test, I used the analysis toward the test answered by the students. In fact, from the total of 40 items given to the students, there were 30 items were valid, 10 items were not valid. I have put the result of calculation in appendix 5. Additionally, the calculation of the validity testing showed in appendix 6 and appendix 7.

4.1.3 Reliability Testing

In testing Reliability, I used to know whether the test reliability or not. The formula that was used in the reliability testing was the K-R. 21 formulas, as follow:

\[
\Gamma_{11} = \left[ \frac{K}{K-1} \right] \left[ 1 - \frac{M (K - M)}{Kvt} \right]
\]
Where:

- $r_{11}$ = instrument reliability
- $K$ = amounts of item/questions
- $vt$ = Varian total
- $M$ = score average

After I applied the formula of reliability testing above, I found that the value of reliability testing or $r_{11} = 0.849$ (shown in appendix 8).

### 4.1.4 Normality Analysis of Pre-Test

In analyzing the normality of the data, I used Liliefors method formula. Based on the calculation of the analysis of pre-test data (See appendix 13), I found the data such as:

- $\sum x_i = 355$, $\sum z_i = 9.8$, $\sum F(z_i) = 7.3094$, $\sum S(z_i) = 7.3335$, $\sum F(z_i) - \sum S(z_i) = -0.02411$ and $L_o = 0.1452$

The data shows that $L_o$ is 0.1452. This value is obtained by taking the high value among score $\sum F(z_i) - \sum S(z_i)$. The criteria value of Liliefors testing ($L_o$) in the level significance ($\alpha = 0.05$) with the sample ($n = 15$) is 0.227. As a result, value of the $L_{\text{list}}$ is 0.227 with criteria analysis is received $H_o$ if $L_o \leq L_{\text{list}}$ (0.1452 ≤ 0.227). So, it can be concluded that pre-test data is normal.

### 4.1.5 Normality Analysis of Post-Test

The following results were found after the normality analysis of post-test data such as (see appendix 16): $\sum x_i = 426$, $\sum z_i = 0.02$, $\sum F(z_i) = 8.0957$, $\sum S(z_i) = 8.8666$, $\sum F(z_i) - \sum S(z_i) = -0.7709$ and $L_o = 0.2247$.

Based on the result above, it was found that $L_o = 0.2247$. This value was obtained by taking the high value among score $\sum F(z_i) - \sum S(z_i)$. The criteria
value of Liliefors testing (Lo) in the level significance (α = 0.05) with the sample (n = 15) is 0.227. As a result value of the $L_{list}$ is 0.227 with criteria analysis is received Ho if Lo ≤ $L_{list}$ (0.2247 ≤ 0.227). So, it can be concluded that post-test data is normally.

4.2 The Description of the Data

4.2.1 The Description of Pre-Test Data

Before I applied the treatment, I gave the pre-test for the students. In the pre-test data (see appendix 9, 10, 11) I found the score below:

a. The students’ lowest score is 21
b. The students’ highest score is 28
c. The range of class interval (R) is 7
d. The amount of class interval (K) is 4
e. The width of class interval (P) is 2
f. The mean of the score is 23.67
g. The standard deviation is 3.32

The description was clear by providing the students' score in pre-test and it can be observed in the following table below:
Table 1
The students’ score in the Pre-Test

<table>
<thead>
<tr>
<th>The score of Pre-Test</th>
<th>F.Absolute</th>
<th>F.Relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-22</td>
<td>6</td>
<td>40 %</td>
</tr>
<tr>
<td>23-24</td>
<td>4</td>
<td>26,67 %</td>
</tr>
<tr>
<td>25-26</td>
<td>2</td>
<td>13,33 %</td>
</tr>
<tr>
<td>27-28</td>
<td>3</td>
<td>20 %</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

From the table above, it shows the students score in pre-test can be distributed in the five interval classes, namely score 20-21 are 4 or 33,33%; 22-23 are 3 or 20%; 24-25 are 4 or 26,67%; 28-29 are 3 or 20%.

The data above also can be seen in the following polygon graphic

Based on explanation above, I found that their vocabulary in pre-test was still low. It is indicated by the total score which is gained from the students is only about 355, where the lowest score of students is 20 and the highest score is 28.

4.2.2 The Description of Post-Test Data
After I gave the pre-test and treatment, I give the post test to know whether the treatment can improve students’ vocabulary or not. The description of the post-test data will be analyzed after I find some scores analyzing the data as follows (See Appendix 12, 13, 14)

a. The students’ lowest score is 23
b. The students’ highest score is 30
c. The range of class interval (R) is 7
d. The amount of class interval (K) is 4
e. The width of class interval (P) is 2
f. The mean of the score is 28.4
g. The standard deviation is 2.0283

The interval of frequency the post-test data can be seen in the following table below:

Table 2

<table>
<thead>
<tr>
<th>The students’ score in the Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>The score of Post-Test</td>
</tr>
</tbody>
</table>
From the table above, it shows that the students’ score in post-test can be distributed in the four classes, namely score 23-24 are 1 or 6.67%; 25-26 are 1 or 6.67%; 27-28 are 5 or 33.33%; 29-30 are 8 or 53.33%.

The data above also can be seen in the following polygon graphic:

By looking the polygon graphic above, it is clear that in post-test most of the students could answer the given question. It can be seen the students’ lowest scores are 23 and the highest score is 30.

Based on explanation above, we can see the result of pre-test and post test is different. In this case, the students’ score in post-test is higher than pre-test. It can be assumed that by giving the treatment to students’ the ability in English vocabulary is improved. It means that the application of the picture in learning is useful to improve the students’ ability in English Vocabulary.
4.3 Analyzing the Data

4.3.1 Testing Hypothesis

The hypothesis of this research is the use of picture that can improve the students’ ability in vocabulary. Based on the appendix 18, I found the value as follows:

1. $\bar{X} = 26,035$
2. $\mu_0 = 11,25$
3. $S = 5,35$
4. $n = 15$
5. $t \text{ count} = 10,707$

The result of t-testing would be presented in the table below:

<table>
<thead>
<tr>
<th>N</th>
<th>DF</th>
<th>t-count</th>
<th>t-list</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>14</td>
<td>10,707</td>
<td>2,977</td>
</tr>
</tbody>
</table>

Where:

- **N**: The number of sample
- **DF**: The degree of freedom ($n - 1$) = 14
- **t-count**: The value obtained from computation result of t-testing analysis
- **t-list**: The value obtained by taking at the table of significance $\alpha = 0,05$

From the table 3 above, I obtained that $t_{-\text{list}} = 2,977$ with degree of freedom = $(n - 2) = 14$, and the level of significance $\alpha = 0,05$. I found the value of $t_{-\text{list}} = 2,977$. The criteria of the hypothesis verification is $H_0$ will be received
if \( t_{list} \) acceptable \( \leq t_{count} \). It can be conclude that the hypothesis acceptable because based on the criteria that \( t_{count} \) is bigger than \( t_{list} \) or \( t_{list} \) smaller than \( t_{count} \), that is \( 2,977 \leq 10,707 \). In other hand, the using picture in English learning can improve the student ability in vocabulary.

### 4.4. Discussion

3Vocabularies are collection of word that person know and have meaning. According to Brodly (2003: 1) vocabulary is knowledge of words and words meaning. It means that vocabulary is important part in English learning.

In teaching English vocabulary, the teacher has to use some ways, methods, strategies or techniques to improve students’ vocabulary. The students have motivation in learning English vocabulary. The students can receive the material if they are happy or enjoyable in class. Each method can be applied by the teachers and the teachers should match it with situation and condition of the students.

Based on my research in SDN 2 Kobo Besar the ability in English vocabulary is in the lowest level. It happens because of the limitation of the students’ ability in vocabulary. The students choose to memorize some vocabularies without knowing the word transcription. For example: I say “eye” the students can understand the meaning of word, but the students are difficult to pronounce, write and speak the word. The problem clearly was I given the students word completed with picture.

Sadiman (2007: 31) said that, “picture is common media that usually use in learning, it is common to use, in understand and enjoy in everywhere”.
According Cahyono (1997: 114) “picture can be used to teach vocabulary and it can be used to develop and sustain motivation. In my research I used picture to teach vocabulary especially noun. Based on students result, picture can motivate students to learn. Picture is an interesting tool which can motivate the students’ thinking abilities.

In my research also, I found another problem happen in SDN 2 Kobo Besar namely teachers. She is not English teacher, so it influenced the students ability in English subject is especially less in English vocabulary. The teachers teach only the basic of English subject that she knows, without comprehending the concept of teaching English. In teaching process the teachers have important role in transferring the material to students. So, English teacher should be creative to make students interested during learning process. To make students develop interest in learning process the teachers should use the precise media to support teaching and learning process.

To improve students ability in English vocabulary especially noun in SDN 2 Kobo Besar, I applied picture as media. From this media I found that the students are surely active and less of boredom in learning process. The students enjoy and relax with the material that I present. They could be free to give expression and imagination. In fact, I found some different results from pre-test and post-test. The result of pre-test, I can say that the student’s ability need to be increased. But, in post-test result, I found that the students’ ability on English vocabulary is improved. They mostly can answer all questions in post-test. It
clearly indicates that the using picture in English learning is influenced positively to improve the students’ ability in vocabulary.

After I found the improvement of the students, I applied the formula t-test in which the result indicates that t-count (10,707) is bigger than t-list (2,977). It means that the hypothesis of my research which is using picture in English learning can be improved significantly to the student’s ability in English vocabulary especially noun where it is expected to be tenable.