CHAPTER IV
RESEARCH FINDING AND DISCUSSION

This chapter provides the final findings obtained based on the result of research and presents the discussion. Those are about the description of pre-test and post-test, the validity test, reliability test, and hypothesis verification.

4.1 Research Findings

The data of this research was collected by using test instrument.

4.1.1 Testing the validity of the test

In the testing the validity of the test, I used the analysis toward the test answered by the students in try out as the class control. In fact, from the total of 40 items given to the students, there were 30 items were valid, 10 items not valid. It can be seen in the table 2 (the result of validity test). There are number 6, 8, 10, 13, 19, 20, 21, 27, 32 and number 33. Those items were not valid because most of the students can answer well the question and it can showed that the students know well the words. Number 21 is invalid because only 6 students can answer the test, then number 19 and 32 were invalid because most of the students can answer the test well. And for number 6,8,10,13,21,27, and 33 also invalid because the items test were not balanced between total students answer (X), total answer by each students (Y) and the total of students answer times each anwer by the students (XY).

Clearly, I have put the result of calculation in appendix 4. Additionally, the calculation of the validity testing showed in appendix 5 and appendix 6.
4.1.2 Reliability Testing

Reliability testing was concept that an instrument is reality accurate to be used in collecting the data. It is intended to examine the reliable or unreliable the instrument of research (see appendix 7). The formula that was used in the reliability testing was the K-R. 21 formulas, as follow:

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

After I applied the formula of reliability testing above, I found that the value of reliability testing or \( r_{11} = 0.887 \) (shown in appendix 7).

4.2 The Description of the Data

4.2.1 The Description of Pre-Test Data

Before the treatment was applied, I gave the pre-test for the students. The description of pre-test data as follows (see appendix 8, appendix 9, and appendix 10) : The students’ highest score was 23, the students’ lowest score was 12, the mean (\( \bar{X} \)) of score was 15.89, the standard deviation (\( S_1 \)) of score was 2.83, the range of class interval (\( R \)) was 11, the amount of class interval (\( K \)) was 5, and the wide of class interval (\( P \)) was 2.

The description was clear by providing the students score in pre test vocabulary in the following table.

<table>
<thead>
<tr>
<th>The score of pre-test</th>
<th>F. Absolute</th>
<th>F. Relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-13</td>
<td>3</td>
<td>15,789 %</td>
</tr>
<tr>
<td>14-15</td>
<td>8</td>
<td>42,105 %</td>
</tr>
<tr>
<td>16-17</td>
<td>4</td>
<td>21,053 %</td>
</tr>
<tr>
<td>18-19</td>
<td>2</td>
<td>10,526 %</td>
</tr>
<tr>
<td>20-21</td>
<td>1</td>
<td>5,263 %</td>
</tr>
<tr>
<td>22-23</td>
<td>1</td>
<td>5,263 %</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

Table 1. The Students’ Score in Pre Test.
The table above can be said that the students’ score of pre-test can be distributed into six classes namely, the students who obtained score from 12-13 were 3 students (15,789 %), score from 14-15 were 8 students (42,105 %), score from 16-17 were 4 students (21,053%), score from 18-19 were 2 students (10,526%), score from 20-21 was 1 student (5,263%) and score from 22-23 was 1 student (5,263%).

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

![Figure 2. Graphic Polygon of Pre-Test Description](image)

**Figure 2. Graphic Polygon of Pre-Test Description**

**4.2.2 The Description of Post-Test Data**

Post-test data was given after the treatment. The description of the post-test data will be analyzed after I found some score analyzing the data as follows (see appendix 12, appendix 13 and appendix 14): The students’ highest score was 29, the students’ lowest score was 15, the mean (\(\bar{X}\)) of score was 21,05, the standard deviation (\(S_2\)) of score was 3,66, the range of class interval (R) was 15, the amount of class interval (K) was 5, and the wide of class interval (P) was 3.
The result of the students’ score in post test can be seen in the following table below:

<table>
<thead>
<tr>
<th>The score of pre-test</th>
<th>F. Absolute</th>
<th>F. Relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-16</td>
<td>2</td>
<td>10,526%</td>
</tr>
<tr>
<td>17-19</td>
<td>4</td>
<td>21,053%</td>
</tr>
<tr>
<td>20-22</td>
<td>6</td>
<td>31,579%</td>
</tr>
<tr>
<td>23-25</td>
<td>5</td>
<td>26,316%</td>
</tr>
<tr>
<td>26-28</td>
<td>1</td>
<td>5,263%</td>
</tr>
<tr>
<td>29-31</td>
<td>1</td>
<td>5,263%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

**Table 2. The Students’ Score in Post-Test.**

The table above can be said that the students’ score of pre-test can be distributed in to six classes namely, the students who obtained score from 14-16 were 2 students (10,526 %), score from 17-19 were 4 students (21,053 %), score from 20-22 were 6 students (31,579%), score from 23-25 were 5 students (26,316%), score from 26-28 were 1 student (5,263%) and score from 29-31 were 1 student (5,263%).

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

**Figure 3. Graphic Polygon of Post-test Description**
By looking at the polygon graphic above it can be seen that there is one highest frequency of students ability in mastering vocabulary, it was the range score from 20-22 (31.579%) and the lowest frequency is from 26-28 (5.263%) and 29-31 (5.263%).

The result of the students’ score in pre-test data and post-test data were different. In this case, the students’ score in the post-test was highest than the students’ score in pre-test. Beside that, it was increased the students’ vocabulary after applying whispering game.

4.3 The Analysis of The Data

4.3.1 Normality Analysis of Pre-Test

In analyzing the normality of the data, I used Liliefors method formula. Base on the calculation of the analysis of pre-test data (See appendix 11), I found the data as follows: \( \sum x_i = 302, \sum z_i = 0,03, \sum F(z_i) = 8,0338, \sum S(z_i) = 9,1574, \sum F(z_i) - \sum S(z_i) = -1,1284 \) and \( Lo = 0,0486 \).

From the calculation, the value is 0,0486. This is the data that showed \( Lo \). The criteria value of Lliefors testing (\( Lo \)) in the level significance (\( \alpha = 0,05 \)) with the sample (\( n = 19 \)) is 0,235. So that, the value of the \( L_{list} \) is 0.235 with criteria analysis is received \( Ho \) if \( Lo \leq L_{list} \) (0.0486 \leq 0.235). So, it can be concluded that pre-test data is normally.

4.3.2 Normality Analysis of Post-Test

The following result were found after the normality analysis of post-test data (see appendix 15) : \( \sum x_i = 400, \sum z_i = 0,01, \sum F(z_i) = 9,3628, \sum S(z_i) = 8,9473, \sum F(z_i) - \sum S(z_i) = 0,4125 \) and \( Lo = 0,1298 \).
It was found that $L_o = 0.1298$. This value was obtained by taking the high value among score in column $\sum F(z_i) - \sum S(z_i)$. The criteria value of Liefors testing ($Lo$) in the level significance ($\alpha = 0.05$) with the sample ($n = 19$) is $0.235$. As a result value of the $L_{-list}$ is $0.235$ with criteria analysis is received $Ho$ if $L_o \leq L_{-list}$ ($0.1298 \leq 0.235$). So, it can be concluded that post-test data is normally.

4.3.3 Testing Hypothesis and Hypothesis Verification

In testing hypothesis, I use t-test formula as follows: $\bar{X} = 18.47, \mu_0 = 14.25$, $S = 6.49$, $n= 19$ and $t_{count} = 2.83$

The hypothesis verification of the research is “whispering game can increase the students’ vocabulary significantly. Based on the appendix 19, the signification data can be seen 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>19</td>
<td>18</td>
<td>2.83</td>
<td>2.10</td>
</tr>
</tbody>
</table>

**Table 3. Significant data**

Notes :

$N$ = The number of sample

$DF$ = Degree of freedom =$n_1 -1$ = 18

$t_{count}$ = the value obtained from the computation result of t testing analysis.

$t_{list}$ = the value obtained by taking at the table of t- distribution at the level of significance $\alpha=0.05$

The table above shows that $t_{count}$ (it shown in appendix 18) with the degree freedom =$n_1 -1$ = 18, at the level of significance $\alpha =0.05$. I found the value of $t_{list}$= 2.10. The criteria of hypothesis verification is $Ho$ be received if $t (1 -1/2 \alpha) \leq t \leq (1 - \frac{1}{2} \alpha)$ it could be concluded that the hypothesis is acceptable because
based on the criteria that \( t_{\text{count}} \) is smaller than \( t_{\text{list}} \) that is 2,83 \( \leq \) 2,10. In this case, Ho received and Ha have rejected. So that Ho have rejected and Ha have received. Likewise, \( t_{\text{count}} \) bigger than \( t_{\text{list}} \) or that is 2,83 \( \geq \) 2,10. It can be concluded that the application of alphabet game can improved significantly the students’ vocabulary.

### 4.4 Discussion

Vocabulary is one of language aspects which can be defined as the word in a certain language. It is important to increased and must be focused on the students’ vocabulary in a process of language teaching.

In teaching english vocabulary, the teacher had to used some ways, methods, strategies or techniques to increase students’ vocabulary to make the students have motivation in learning vocabulary. In this situation, by using game the students can receive the material because they were happy or enjoy in class and without forcing. Games help and encourage many learner a cheerful atmosphere and motivate the learner to learn better.

One of the games that is appropriate in mastering vocabulary is “whispering game”. As Chirandon et al. (2010: 1) in their research, they used six games, and only three games which about vocabulary. One of those games was whispering game. Chirandon et al. emphasize that whispering game can increase students’ vocabulary. The result of their research in level preference as the attitudes towards types in teaching English has strongly like. Therefore, it was useful for teaching vocabulary, because the way of this game could be make the students easy to understand vocabulary itself and then make the situation in class become fun,
interesting and comfortable. So the aim of this research is whether whispering game can increase students’ vocabulary or not.

In this research, I took one class as the subject of research. In this case, I gave pre-test, treatment and post-test to the students. Furthermore, I use statistical analysis. In analyzing and finding result of the data in pre-test and post-test. Thus, from the hypothesis verification of pre-test and post-test with the level of signification $\alpha = 0.05$. From the result on the data indicates the vocabulary of the students increased after conducting treatment then before. In other words, the students’ vocabulary in post-test is higher than students’ vocabulary in pre-test.

4.4.1 Pre-Test

The result of the students’ vocabulary in pre-test was still low. In fact, most of the students could not answer the question of missing letter form. Pay attention to the example below:

Question number 4

4. S T R _ W B E _ R _

The correct answer to the question above is: “Strawberry”. However, most of the students made mistakes in answering the question. In fact, only 5 students gave the correct answer. The other example is bellow:

Question number 23

23. L E _ T U C _

In this case, many students made mistake in answer the question as same as the made in number 4. Most of them fill the question with letter which not appropriate with the word. The correct answer is “lettuce”. By seeing at both of
two answer of this question, it can be said that the students’ vocabulary still low. It happened because the students has difficulty to understand the meaning of vocabulary. They may also do not know what the words is. it indicated that the total score got by the students was 302, where the lowest score of the students was 12, and the highest score 23. Based on the score, I found the mean score of the students in the pre-test was 15.89. So, the students’ vocabulary needed to increase. As Ersoz (2000:1) state that playing game in classroom is meaningful and useful language in real contexts. Thus, if we using game in class wisely, it can help a good learning environment and also motivate the students in learning more. (Huyen and Nga, 2003:1).

4.4.2 Treatment

After giving the pre-test, I gave a treatment to the students. In this case, I applied whispering game. According Chirandon et al. (2010: 1) in their research emphasizes that whispering game can increase students’ vocabulary. It is useful for teaching vocabulary, because by playing this game the students can understand the material easily, especially the vocabulary itself. I teach the students of eight meetings, based on four materials will give in two times. the materials namely parts of body, fruits and vegetable, animal and things.

a. first meeting

In the first meeting, I give the treatment to the students about the parts of body. I asked the students to call out the categories of parts of body. In fact, the students can not mention the words correctly and answered them less only. The
students said they that forgot the categories of parts of body in English. They also may feel nervous and shy to answer because they become afraid.

b. second meeting

in this meeting, I gave whispering game. In this case, the material is same in first meeting. It is about parts of body. So that, the students felt not bored and enjoy the material. The words that I gave in the second meeting are more than in first meeting. Some are the new words of kinds of parts of body.

c. Third meeting

In third meeting, I taught the students about fruits and vegetables. I asked them to mention the kinds of fruits and vegetables in English. In this time, I gave the students some picture and then the students guess what the pictures are. After they look and guess the pictures, I have explain them even the pronunciation and the written. It is important to make the students understand the words well.

d. fourth meeting

In the fourth meeting, I gave the same material with in the third meeting. It is about fruits and vegetables. In this meeting, again I used the whispering game, the students have learned faster than before because the students playing game. Erzos (2000:1) says that games are motivating and challenging, because games amusing and interesting. It can be seen when the students playing this game, they are motivated to learned more.

e. Fifth meeting

In the fifth meeting, the students were taught about animals, I ask the students to write about the name of usual animals. In this session, I asked to the
students to divide in some group, than think about habitat of animals in the sea, and so on. After all group finished, they are have to share the materials each other, play whispering game. This sessions important to make the students know more about the material vocabulary itself.

f. Sixth meeting

In the sixth meeting, I found the students more relax an attractive also brave. They easy to understand the materials because of using game, in this case, the materials still same with fifth meeting.

g. Seventh meeting

in the seventh meeting, the material is about things, actually and began to introduce the things in the classroom. The students individually call out the kinds of things in the classroom. In this meeting again the students playing whispering game to make they remember about the words.

h. Eight meeting

In the eight meeting, in the meeting, I gave the students to review all the previous material. It was to know the students vocabulary was improved or not. In the session, I ask the students to write down what I say. The students have to write them in the correct answer.

In the fact, from the treatment above, whispering game was effective in the teaching English, because the students have more vocabulary than before, they could identify and arrange words correctly. They felt relax and enjoy in learning process. The students did now felt bored anymore.
4.4.3 Post-Test

I gave the post-test after the treatment. In the post-test, I gave the same test that was given in the pre-test. In this case, I found that the score of the students was increased. It showed that the students’ score higher than in pre-test. In the post-test, the students’ highest score is 29 and the students lowest score is 14. It indicated the total score by the students was 400. Based on these score, I found that the mean score in the post were 21,05.

By the result of pre-test and post test, I found some questions were the easier questions among the question given. For example:

Question number 28

28. W H I T _ B _ A R D

The correct answer is “whiteboard”. This question is very easily to be answered because the students already heard it when in the treatment.

The following example was a difficult question to answer by the students:

6. T _ N G _ E

The correct answer is “tongue”. It is difficult because the students could not know mostly the word. After I gave the treatment to the students which consist of some materials include part of body, so the students’ vocabulary was increase.

Finally, in testing the hypothesis I use statistical analysis t-test. The criteria was receive Ho, if \( t_{\text{count}} \leq t_{\text{list}} \) and Ha was rejected or Ho was rejected if \( t_{\text{count}} \geq t_{\text{list}} \) and Ha was received. After I analyzed the data, I found that the value of \( t_{\text{count}} \) = 2,83 with the degree freedom \((n_1 -1) = 18\) and the level significance \( \alpha = 0,05 \). I
also found the value of $t_{list} = 2.10$. As a result, $t_{list}$ was smaller than $t_{count}$ ($2.10 \leq 2.83$). It means that the hypothesis was received.

From the description, we can see there is the increased value of the students’ vocabulary, when I applied the whispering game. Huyen and Nga, 2003:1 says, “games bring in relaxation and fun for students, thus help them learn and retain new words more easily”. In this condition, the students become bravest than before and relaxed in studying english, especially about vocabulary. It was proved by the result of the post-test data shows that the students more freely to express their idea in front of the class or to their friends. Beside that the students also have highly motivation to increase their vocabulary and knowledge. Hereinafter, the students also the students’ vocabulary was increased because of the test in this research was by using missing letter.