CHAPTER IV
RESULT AND DISCUSSION

A. Result of the Research

1. Result of Pre-test

The researcher conducted pre-test in order to see students’ vocabulary mastery before the treatment. The score of the students’ vocabulary mastery that were tested in pre test can be seen in figure 1 and 2.

![Graph of the Result of the Pre-test in Experimental Class](image)

Based on figure 1, the mean of pre-test in experimental class is 42, standard deviation = 9.583, N = 24, median = 44.00, variance = 91.826, minimum score = 24, maximum = 56. It showed students’ vocabulary mastery in experimental class before they got treatments.
Based on figure 2, the mean of pre-test in control class was 43.58, standard deviation = 7.824, N = 24, median = 44.00, variance = 61.210, minimum score = 32, maximum = 56. It showed students’ vocabulary mastery in control class before they got treatments.

According to the data of pretest above, it can be seen that the mean of pretest in experimental class was 42.00 and the mean in control class was 43.58. It was indicated that the students’ vocabulary scores in experimental ans control class is almost same before they got treatments.
2. Result of Post-test

The post-test was administrated in order to know students’ vocabulary mastery after the treatments given. It can be seen from the post-test score of students’ vocabulary mastery in the control class and experimental class in figure 3 and 4.

Figure 3
Graph of the Result of the Post-test in Experimental Class

Based on figure 3, the mean of post-test in experimental class is 74.75, standard deviation = 6.347, N = 24, median = 76.00, variance = 40.283, minimum score = 52, maximum = 84. It showed students’ vocabulary mastery after they got treatments.
Based on figure 4 above, the mean of post-test in control class is 53.33, standard deviation = 13.380, N = 24, median = 53.00, variance = 179.014, minimum score = 48, maximum = 84. It showed students’ vocabulary mastery after they got treatments in control class.

According to the data of post-test above, it can be seen that the mean of post-test in experimental class was 74.75 and the mean in control class was 53.33. The mean in experimental class was higher then control class, it was indicated that the students’ vocabulary mastery have increased after they got treatments by using two stay two stray technique.
3. **Gain Score**

The researcher got gain score from post-test score reduced by pretest score. Gain score was used to analyze normality, homogeneity and hypothetical independent t-test. If gain score in this manner positive, it indicated that post-test score was higher than pretest. A negative gain score indicated that the post-test score was lower than pretest.

The gain score of the students in this research can be seen in appendix.

**B. Result of Data Analysis**

1. **Result of Normality**

The researcher did this normality test to know whether the data have normal distribution or not. In this case, the researcher used SPSS version 16 to calculate the data.

a. The hypotheses

The hypotheses are:

$H_0$: The data have normal distribution.

$H_a$: The data do not have normal distribution.

b. The test criteria

The test criteria are:

If the value $(p) >$ significant $(\alpha = 0.05)$ it means that, $H_0$ was accepted

If the value $(p) <$ significant $(\alpha = 0.05)$ it means that, $H_a$ was accepted
Table 6  
The normality Test of Experimental and Control Class

<table>
<thead>
<tr>
<th>Technique</th>
<th>Kolmogorov-Smirnov&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>gain</td>
<td>Experiment</td>
<td>.115</td>
</tr>
<tr>
<td>Control</td>
<td>.137</td>
<td>24</td>
</tr>
</tbody>
</table>

<sup>a</sup> Lilliefors Significance Correction

Based on Table 4.1, it can be seen that Pvalue (Sig.) for experimental class was 0.388 and Pvalue (Sig.) for control class was 0.662. Because Sig. (Pvalue) of experimental class > α 0.05. So, Ho is accepted and Sig. (Pvalue) for the control class > α 0.05. So, Ha is rejected. The conclusion is that the data in the experimental class and control class had normal distribution.

2. Result of Homogeneity

The researcher tested homogeneity test after he got score of students’ vocabulary mastery in control class and experimental class (pretest and posttest of students’ vocabulary mastery)

a. The hypotheses are:

   \( H_a = \text{The variance of the data are not homogeneous} \)

   \( H_o = \text{The variance of the data are homogeneous} \)

b. The criteria of the test are follows:

   \( H_o \) is accepted if \( \text{sig} > \alpha = 0.05 \)
Hₐ is accepted if sig < α = 0.05

### Table 7
**The Result of Homogeneity Test**

<table>
<thead>
<tr>
<th>Gain</th>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on Mean</td>
<td>.471</td>
<td>1</td>
<td>46</td>
<td>.496</td>
</tr>
</tbody>
</table>

Based on the results obtained in the test of homogeneity of variances in the column, it could be seen that Sig. (P-value) based on mean was 0.496 > α = 0.05. It demonstrated that H₀ was accepted because Sig. (P-value) > α = 0.05. It means that the variance of the data were homogenous.

### 3. Result of Hypothetical Test

Based on the previous explanation, the normality and homogeneity test were satisfied. Therefore, the researcher used the hypothetical test using SPSS (*Statistical Program for Social Science*), independent sample t-test.

The hypothesis formulas are:

- **Hₐ**: There is no influence of using two stay two stray technique towards students’ vocabulary mastery at the first semester of the eighth grade of SMP N 3 Kotabumilampung Utara in the academic year of 2017/2018.

- **H₀**: There is influence of using two stay two stray technique towards students’ vocabulary mastery at the first semester of the eighth grade of SMP N 3 Kotabumilampungutara in the academic year of
2017/2018

The criteria of acceptance or rejection of the hypothesis for hypothetical test were:

$H_0$ is accepted if $\text{Sig. (Pvalue)} > \alpha = 0.05$

$H_a$ is accepted if $\text{Sig. (Pvalue)} < \alpha = 0.05$

Table 8
The Result of Hypothetical Test

<table>
<thead>
<tr>
<th>Gain</th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$F$</td>
<td>$\text{Sig.}$</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.471</td>
<td>.496</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>6.560</td>
<td>45.119</td>
</tr>
</tbody>
</table>

Based on the results obtained in the independent sample t-test in Table 4.3 above, the value of significant generated $\text{Sig. (Pvalue)} = 0.000 < \alpha = 0.05$. So, $H_a$ is accepted and $H_0$ is rejected. Based on the computation, it can be concluded that there was a significant influence of two stay two stray technique towards students’ vocabulary mastery in the first semester of the eighth grade of SMP N 3 Kotabumilampung Utara in the academic year of 2017/2018.
C. Discussion

The students’ vocabulary mastery at SMP N 3 Kotabumi Lampung Utara have difficulty in learning vocabulary, it is proven by the score of the students in preliminary research. There were 70% of the students who got the score under 65 as the KKM. It means that the students’ vocabulary mastery is still low and need to be increased. To solve the problem, the researcher applied two stay two stray technique in teaching vocabulary. Thus, the objective of this research is to know whether there is influence of using two stay two stray technique toward students’ vocabulary mastery at the first semester of the eighth grade of SMP N 3 Kotabumi lampung Utara in the academic year of 2017/2018. This research had been carried through six steps. They involved try out test, pre-test, three times of treatments, and post-test.

The research had been conducted since November, 20th 2017 at 08:40 to 10.00, it begun by giving tryout test to the students in VIII B as try out class. The researcher prepared 50 test items as the instrument of the test items for pre-test and post-test. From 50 test items of tryout, some items were chosen as the instrument of the test. The choosing of the instrument had been done by considering two categories, validity and reliability. After being tryout the researcher used 25 questions for pre-test and post-test.

Before conducting treatments, the researcher conducted the pre-test for experimental class on November, 21st 2017 at 09:40 to 11:00 am, and control class on November, 21st 2017 at 07:15 to 09.30 am. In pre-test the test items consist of 25 items of
multiple choice test with four options (a, b, c, and d). The result of pre-test was shown that the mean in control class was 43.58 and in experimental class was 42. (see appendix 13).

After conducted the pre-test, the researcher conducted three times treatments. The first treatment was administered on November 22nd 2017 at 07:15 to 08:35 am. The lesson has begun by greeting the students, introducing the researcher and checking their attendance. The next step was teaching learning process. Before applying the technique, the researcher gave material about nouns. The topic in the first treatment was learning noun in daily activities. Thus, the teaching and learning process was attended by 24 students. As the material fully delivered, the researcher implemented two stay two stray technique. The researcher explained the role of the technique to the students. The researcher divided students become six groups, each groups consist of four students. Then the researcher gave text about daily activities. Three groups was got the same text and three groups was got the same text. After they understanding the material, two students of each group moved to another group that got the different text from their groups. Then they changed the information of the text. Finally they came back to their first group to matching their information. In the last activity, the researcher together with the students made conclusion of what they have learned. After that the researcher evaluated by giving the questions based on the text. And finally the researcher closed the first meeting.
The second treatment was administered on November, 25\textsuperscript{th} 2017 at 07:15 to 08:35 am. The researcher did almost the same activity to begin the class as what the researcher did in the first treatment. But the learning material in the second meeting was about verbs and adjectives. In the second treatment, it was better than the first treatment, because the students knew the technique and material before the lesson began. The procedure of two stay two stray technique was done better than previous treatment, therefore the students more active and motivate in learning process with the second treatment.

The third treatment was administered on November, 28\textsuperscript{th} 2017 at 07:15 to 08:35 am. The researcher held the activity as usual from beginning until closing. The activities in the third meeting still same as the first and second meeting. The learning material in the third meeting was about nouns verbs and adjectives in daily activities.

After finishing all treatments, the researcher conducted post-test for experimental and control class. Both control and experimental classes were tested with the same test items, the post test was conducted on December 2\textsuperscript{nd} 2017 at 07:15 to 08:35 am. In the post-test, the test items consist of 25 items of multiple choice test with four options (a, b, c, and d). The result of the post test was shown that mean in control class was 53.55, and mean in experimental class was 74.75. (see appendix 13).

Based on the result of pre-test and post-test score above, it showed that the mean in pre-test score of experimental class was 42 and in the post-test score was 74.75, while
the mean in the pre-test score of control class was 43.58 and in post-test was 53.33. According to the result of the students’ pre-test and post-test score, it showed that the students’ post-test score was higher than pre-test score. After the researcher got the pre-test and pos-test score, the researcher used the data to find out the gain score. Gain score was used to analyze the normality of data and it showed that the data were normal. After the data was normal, the researcher analyzed the homogeneity of the data based on the gain score and it showed that the data were homogeneous.

Based on the analysis of the data and testing of the hypothesis, the result of the calculating by using SPSS version 16 found that sig. (2-tailed) of the equal variance assumed in the independent sample test table was 0.000. it was lower than 0.005 as the criteria. It means that the hypothesis null (H_0) was rejected and the hypothesis alternative (H_a) was accepted. From the analysis above, it can be concluded that the use of two stay two stray technique in teaching vocabulary could improve the students’ vocabulary mastery.

The result of the data analysis showed that the use of two stay two stray technique in teaching vocabulary seemed to be applicable for the eighth grade of SMP N 3 Kotabumilampung Utara. The technique made the studentseasier to memorize the vocabulary. It means that this research enriches the previous research that was conducted by Dina Nur entitled Influence of two stray two stray towards students’ reading ability. In the end of the thesis she said that the students’ reading ability have significant influence after being taught by using two stay two stray technique.
From the explanation above, it can be concluded that there is influence of using two stay two stray technique towards students vocabulary mastery at the first semester of the eighth grade of SMP N 3 Kotabumi Lampung Utara in academic year of 2017/2018.