## CHAPTER IV

## FINDINGS AND DISCUSSION

## A. Findings

The researcher conducted field research on $30^{\text {th }}$ October until $14^{\text {th }}$ November 2017. The researcher got the data as in the data collection procedures. The data collected from test, interview, and observation. The main data in this research were collected from test, the data from interview and observation were supported data. Based on the statement of problems the researcher found the result as follows:

## 1. The Result from Experiment Class

The Table 4.1 below shows the students' pre-test and post-test score on reading comprehension of narrative text in experiment class. Pre-test score was students' score before the researcher did treatments in experiment class, while post-test score was students' score after the researcher did treatments in experiment class using story mapping technique. There were 35 students in experiment class.

Table 4.1 Students' Pre-test and Post-test Score of Experiment Class

| No | Students | Pre-test | Post-test | Gained <br> Score |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Student-A | 56 | 68 | 12 |
| 2 | Student-B | 48 | 64 | 16 |
| 3 | Student-C | 48 | 60 | 12 |
| 4 | Student-D | 40 | 72 | 32 |
| 5 | Student-E | 64 | 80 | 16 |


| 6 | Student-F | 40 | 60 | 20 |
| :---: | :---: | :---: | :---: | :---: |
| 7 | Student-G | 76 | 80 | 4 |
| 8 | Student-H | 36 | 60 | 24 |
| 9 | Student-I | 48 | 64 | 16 |
| 10 | Student-J | 52 | 64 | 12 |
| 11 | Student-K | 48 | 60 | 12 |
| 12 | Student-L | 36 | 52 | 16 |
| 13 | Student-M | 56 | 56 | 0 |
| 14 | Student-N | 44 | 56 | 12 |
| 15 | Student-O | 24 | 40 | 16 |
| 16 | Student-P | 24 | 32 | 8 |
| 17 | Student-Q | 40 | 64 | 24 |
| 18 | Student-R | 44 | 64 | 20 |
| 19 | Student-S | 44 | 56 | 12 |
| 20 | Student-T | 36 | 56 | 20 |
| 21 | Student-U | 40 | 56 | 12 |
| 22 | Student-V | 56 | 60 | 4 |
| 23 | Student-W | 36 | 48 | 12 |
| 24 | Student-X | 76 | 84 | 8 |
| 25 | Student-Y | 44 | 52 | 8 |
| 26 | Student-Z | 28 | 44 | 16 |
| 27 | Student-AA | 40 | 52 | 12 |
| 28 | Student-BB | 44 | 76 | 28 |
| 29 | Student-CC | 52 | 76 | 24 |
| 30 | Student-DD | 36 | 64 | 28 |
| 31 | Student-EE | 52 | 72 | 20 |
| 32 | Student-FF | 32 | 44 | 12 |
| 33 | Student-GG | 52 | 72 | 24 |
| 34 | Student-HH | 48 | 72 | 24 |


| 35 | Student-II | 56 | 72 | 16 |
| :---: | :---: | :---: | :---: | :---: |
| $\sum$ |  | $\mathbf{1 5 9 6}$ | $\mathbf{2 1 5 2}$ | $\mathbf{5 5 2}$ |
| Mean |  | $\mathbf{4 5 . 6 0}$ | $\mathbf{6 1 . 4 9}$ | $\mathbf{1 5 . 7 7}$ |

Based on the table above, it can be seen that the lowest score of pre-test was 24 and the highest score was 76 . While, the lowest score of post-test was 32 and the highest was 84 . The mean of pre-test was 45.60 and the mean of post-test was 61.49 . After conducting pre-test and posttest, the researcher found the mean gained score was 15.77. The mean of post-test after giving treatments using story mapping technique is higher than the mean of pre-test before giving treatments. It means that there was a difference improvement on students' score of pre-test and post-test in experiment class.

## 2. The Result from Control Class

The Table 4.2 below presents the students' pre-test and post-test score on reading comprehension of narrative text of control class, which was taught without using story mapping technique. In control class the researcher did not give treatments as in experiment class. There were also 35 students in control class.

Table 4.2 Students' Pre-test and Post-test Score of Control Class

| No | Students | Pre-test | Post-test | Gained <br> score |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Student-A | 48 | 60 | 12 |
| 2 | Student-B | 48 | 56 | 8 |


| 3 | Student-C | 32 | 56 | 24 |
| :---: | :---: | :---: | :---: | :---: |
| 4 | Student-D | 52 | 60 | 8 |
| 5 | Student-E | 44 | 56 | 12 |
| 6 | Student-F | 44 | 68 | 24 |
| 7 | Student-G | 32 | 44 | 12 |
| 8 | Student-H | 56 | 52 | -4 |
| 9 | Student-I | 52 | 64 | 12 |
| 10 | Student-J | 40 | 52 | 8 |
| 11 | Student-K | 52 | 64 | 12 |
| 12 | Student-L | 40 | 64 | 24 |
| 13 | Student-M | 48 | 64 | 16 |
| 14 | Student-N | 52 | 72 | 20 |
| 15 | Student-O | 52 | 60 | 8 |
| 16 | Student-P | 48 | 44 | -4 |
| 17 | Student-Q | 40 | 60 | 20 |
| 18 | Student-R | 36 | 52 | 16 |
| 19 | Student-S | 36 | 48 | 12 |
| 20 | Student-T | 60 | 64 | 4 |
| 21 | Student-U | 44 | 56 | 12 |
| 22 | Student-V | 28 | 40 | 12 |
| 23 | Student-W | 48 | 56 | 8 |
| 24 | Student-X | 32 | 44 | 12 |
| 25 | Student-Y | 40 | 52 | 12 |
| 26 | Student-Z | 40 | 56 | 16 |
| 27 | Student-AA | 56 | 60 | 4 |
| 28 | Student-BB | 72 | 76 | 4 |
| 29 | Student-CC | 36 | 60 | 24 |
| 30 | Student-DD | 48 | 56 | 8 |
| 31 | Student-EE | 36 | 52 | 16 |


| 32 | Student-FF | 56 | 60 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| 33 | Student-GG | 48 | 76 | 28 |
| 34 | Student-HH | 40 | 52 | 12 |
| 35 | Student-II | 48 | 56 | 8 |
| $\sum$ |  | $\mathbf{1 5 8 4}$ | $\mathbf{2 0 1 2}$ | $\mathbf{4 2 4}$ |
| Mean |  | $\mathbf{4 5 . 2 6}$ | $\mathbf{5 7 . 4 9}$ | $\mathbf{1 2 . 1 1}$ |

According to table 4.2 above, it can be seen that the lowest score of pre-test was 28 and the highest score was 72 . While, the lowest score of post-test was 40 and the highest was 76 . After conducting pre-test and post-test, the researcher found the mean gained score was 12.11. The mean of pre-test was 45.26 and mean post-test was 57.49 . It showed that the students' score of control class was also increased.

However, even though the students' score of control class was also increased, it was not as high as the students' score of experiment class which is the mean of gained score was 15.77 . It can be inferred that the students' score of experimental class which learning reading narrative text using story mapping technique was higher than the students' score in control class which learning reading narrative text without using story mapping technique.

## 3. The Result of Significant Difference on Students' Score Between Experiment and Control Class

Based on the result data gained score, the data showed that there was any significant difference on students' score between experiment and
control class. The following table is the data of gained score both experiment class using story mapping technique and control class without using story mapping technique.

Table 4.3. The Comparison Gained Score of Each Students in Experiment Class and Control Class

| No | Students <br> $(\mathbf{X})$ | Students <br> $(\mathbf{Y})$ | Gained <br> Score <br> $\mathbf{( X )}$ | Gained <br> Score <br> $(\mathbf{Y})$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Student-A | Student-A | 12 | 12 |
| 2 | Student-B | Student-B | 16 | 8 |
| 3 | Student-C | Student-C | 12 | 24 |
| 4 | Student-D | Student-D | 32 | 8 |
| 5 | Student-E | Student-E | 16 | 12 |
| 6 | Student-F | Student-F | 20 | 24 |
| 7 | Student-G | Student-G | 4 | 12 |
| 8 | Student-H | Student-H | 24 | -4 |
| 9 | Student-I | Student-I | 16 | 12 |
| 10 | Student-J | Student-J | 12 | 8 |
| 11 | Student-K | Student-K | 12 | 12 |
| 12 | Student-L | Student-L | 16 | 24 |
| 13 | Student-M | Student-M | 0 | 16 |
| 14 | Student-N | Student-N | 12 | 20 |
| 15 | Student-O | Student-O | 16 | 8 |
| 16 | Student-P | Student-P | 8 | -4 |
| 17 | Student-Q | Student-Q | 24 | 20 |
| 18 | Student-R | Student-R | 20 | 16 |
| 19 | Student-S | Student-S | 12 | 12 |
| 20 | Student-T | Student-T | 20 | 4 |
| 21 | Student-U | Student-U | 12 | 12 |
| 22 | Student-V | Student-V | 4 | 12 |
| 23 | Student-W | Student-W | 12 | 8 |
| 24 | Student-X | Student-X | 8 | 12 |
| 25 | Student-Y | Student-Y | 8 | 12 |
| 26 | Student-Z | Student-Z | 16 | 16 |
|  |  |  |  |  |


| 27 | Student- <br> AA | Student- <br> AA | 12 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| 28 | Student-BB | Student-BB | 28 | 4 |
| 29 | Student-CC | Student-CC | 24 | 24 |
| 30 | Student- <br> DD | Student- <br> DD | 28 | 8 |
| 31 | Student-EE | Student-EE | 20 | 16 |
| 32 | Student-FF | Student-FF | 12 | 4 |
| 33 | Student- <br> GG | Student- <br> GG | 24 | 28 |
| 34 | Student- <br> HH | Student- <br> HH | 24 | 12 |
| 35 | Student-II | Student-II | 16 | 8 |
| $\sum$ |  |  | $\mathbf{5 5 2}$ | $\mathbf{4 2 4}$ |
| Mean |  | $\mathbf{1 5 . 7 7}$ | $\mathbf{1 2 . 1 1}$ |  |

Based on the table above, it can be seen that the total of gained score in experiment class $(\mathrm{X})$ is 552 and the total of gained score in control class $(\mathrm{Y})$ is 424 . After conducting pre-test and post-test in both experiment and control class, the researcher got the mean of gained score on experiment class was 15.77 while the mean of gained score in control class was 12.11 .

## 4. The Result Effectiveness Using Story Mapping Technique In Teaching

## Reading Comprehension of Narrative Text

To measure the effectiveness of story mapping technique, the researcher used the gained test as Nuraeni in Mahmudah (2014, p.59) stated by using the following formulas:
$g=\frac{\text { score post test }- \text { score pre test }}{\text { score maximal }- \text { score pre test }}$

Notes :

Score maximal= 100
Students (N) $=35$
$g \quad=$ gain score
$g=\frac{\sum g}{N}$
Table 4.4. Categories Score of Test for Measuring Effectiveness

| Score | Categories |
| :---: | :---: |
| $\mathrm{g}<0,3$ | Low |
| $0,3 \leq \mathrm{g} \leq 0,7$ | Fair |
| $\mathrm{g}>0,7$ | High |

The following table is the result calculation of gained test for measure the effectiveness story mapping technique in experiment class.

Table 4.5. The Result of Gained Test Using Story Mapping Technique

| Students | Score |  | Gained <br>  <br> Pre- <br> test | Post- <br> test |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| 1 | 56 | 68 | 12 | 0.272727 |
| 2 | 48 | 64 | 16 | 0.307692 |
| 3 | 48 | 60 | 12 | 0.230769 |
| 4 | 40 | 72 | 32 | 0.533333 |
| 5 | 64 | 80 | 16 | 0.444444 |
| 6 | 40 | 60 | 20 | 0.333333 |
| 7 | 76 | 80 | 4 | 0.166667 |
| 8 | 36 | 60 | 24 | 0.375 |
| 9 | 48 | 64 | 16 | 1.307692 |
| 10 | 52 | 64 | 12 | 0.25 |
| 11 | 48 | 60 | 12 | 0.230769 |
| 12 | 36 | 52 | 16 | 0.25 |


| 13 | 56 | 56 | 0 | 0 |
| :---: | :---: | :---: | :---: | :---: |
| 14 | 44 | 56 | 12 | 0.214286 |
| 15 | 24 | 40 | 16 | 1.210526 |
| 16 | 24 | 32 | 8 | 0.105263 |
| 17 | 40 | 64 | 24 | 0.4 |
| 18 | 44 | 64 | 20 | 0.357143 |
| 19 | 44 | 56 | 12 | 0.214286 |
| 20 | 36 | 56 | 20 | 0.3125 |
| 21 | 40 | 56 | 12 | 0.2 |
| 22 | 56 | 60 | 4 | 0.090909 |
| 23 | 36 | 48 | 12 | 0.1875 |
| 24 | 76 | 84 | 8 | 0.333333 |
| 25 | 44 | 52 | 8 | 0.142857 |
| 26 | 28 | 44 | 16 | 0.222222 |
| 27 | 40 | 52 | 12 | 0.2 |
| 28 | 44 | 76 | 28 | 0.5 |
| 29 | 52 | 76 | 24 | 0.5 |
| 30 | 36 | 64 | 28 | 0.4375 |
| 31 | 52 | 72 | 20 | 0.416667 |
| 32 | 32 | 44 | 12 | 0.176471 |
| 33 | 52 | 72 | 24 | 0.5 |
| 34 | 48 | 72 | 24 | 0.461538 |
| 35 | 56 | 72 | 16 | 0.363636 |
|  |  |  |  | 12.249063 |
|  |  |  |  |  |

$$
g=\frac{\sum g}{N}=\frac{12.249063}{35}=0.3410
$$

Based on the result of calculation above, the value $\mathrm{g}=0.3410$, and it can be concluded that effectiveness of using story mapping technique in experiment class in fair category.

## B. Discussions

After the researcher got the result students' pre-test and post-test score of both experiment and control class, the researcher categorized students' score into five categories as suggested by Anas Sudijono (2011, p.35) as follows:

Table 4.6 Categories Students' Score Pre-test in Experiment Class

| Score | Frequencies | Categories |
| :---: | :---: | :---: |
| $80-100$ | 0 | Very Good |
| $66-<80$ | 2 | Good |
| $56-<66$ | 5 | Fair |
| $46-<56$ | 9 | Low |
| $0-<46$ | 19 | Very Low |
| Total | 35 |  |

According to table above, it can be seen that students' pre-test score in experiment class is 19 students in very low categories, 9 students in low categories, 5 students in fair categories, and 2 students in good categories.

Table 4.7 Categories Students' Score Post-test in Experiment Class

| Score | Frequencies | Categories |
| :---: | :---: | :---: |
| $80-100$ | 3 | Very Good |
| $66-<80$ | 7 | Good |
| $56-<66$ | 17 | Fair |
| $46-<56$ | 4 | Low |
| $0-<46$ | 4 | Very Low |
| Total | 35 |  |

Based on the table above, after doing treatment the result students' post-test score in experiment class shows most of students increased into fair categories with 17 students, 3 students in very good categories, 7 students in good categories, and 4 students in low and very low categories.

Table 4.8 Categories Students' Score Pre-test in Control Class

| Score | Frequencies | Categories |
| :---: | :---: | :---: |
| $80-100$ | 0 | Very Good |
| $66-<80$ | 1 | Good |
| $56-<66$ | 4 | Fair |
| $46-<56$ | 13 | Low |
| $0-<46$ | 17 | Very Low |
| Total | 35 |  |

From the table it can be seen that the students' pre-test score in control class got the result 1 students in good categories, 4 in fair categories, 13 in low categories, and 17 in very low categories.

Table 4.9 Categories Students' Score Post-test in Control Class

| Score | Frequencies | Categories |
| :---: | :---: | :---: |
| $80-100$ | 0 | Very Good |
| $66-<80$ | 4 | Good |
| $56-<66$ | 19 | Fair |
| $46-<56$ | 8 | Low |
| $0-<46$ | 4 | Very Low |
| Total | 35 |  |

The table above shows the result of students' post-test score in control class also most of students in fair categories with 19 students, 4 students in good categories, 8 students in low categories, and 4 students in very low categories.

According to the result from experiment class, the students' score on reading comprehension of narrative text which taught using story mapping technique in experiment class has the mean score of pre-test was 45.60 before beeing given treatments using story mapping technique which the lowest score 24 and the highest score 76 . After conducted pre-test, the researcher applied treatment in teaching reading comprehension of narrative text by using story mapping technique 3 times, the researcher got the mean score of post-test 61.49 which the lowest score 32 and the highest score 84 . The researcher got the mean of gained score 15.77 after conducting pre-test and post-test, and the mean of gained score showed significant different before and after applying story mapping technique. Thus, it can be concluded that story mapping technique has improved tudents' score on reading comprehension of narrative text. It has proved that story mapping technique could increase students reading comprehension of narrative text.

As Babyak et al. argue that story mapping represents the elements of narrative text, it makes the students become easier to read story in narrative text and apply it into story mapping elements. Hence, when the students are taught using story mapping technique, they could be easy to read the narrative text. Because they were familiar with the story mapping
elements, they could be easy to read the passage and answer the questions relating to the passage. It can be seen from students' score in post-test after applying story mapping technique which the mean score of post-test was 61.49 , and it was higher than the mean score of pre-test (45.60).

Meanwhile, from the result in control class the students' score on reading comprehension of narrative text which was taught without using story mapping technique, the researcher got the mean score of pre-test was 45.26 which the lowest score was 28 and the highest score was 72 . In control class, the researcher did not use story mapping technique but using the technique as usual. He asked the students to read the story to translate the story into Indonesian language and answer the questions based on the story. The researcher also taught 3 times using usual technique. The mean score of post-test was 57.49 which the lowest score was 40 and the highest score was 76 . The researcher got the mean of gained score 12.11 after conducting pre-test and post-test. The students' score of control class was also increased, but it was not so higher than the students' score of experiment class which the mean of gained score was 15.77 . It can be summarized that the gained score of experiment class was higher than control class.

Before testing the hypothesis, the researcher analyzed the normality and homogeneity of the data. Normality test were used to decide whether the data was distributed normally or not. To find out normality of the data, the researcher used SPSS program v. 16 for windows. Normality
of the data was used as a requirement to calculate $t_{\text {test }}$. If the data was distributed normally, $t_{\text {test }}$ could be applied to find out the significant difference between post-test control class and experiment class. To make decision wether the data was normaly distributed or not, the researcher see the result of significant table of SPSS on Shapiro-Wilk. If significant value was higher than 0.05 , it could be concluded that the data were normally distributed.

Homogeneity test has purpose to find wether the data in both classes are homogenous or heterogenous. The researcher also used SPSS program v. 16 for windows to find out the homogeneity of the data by looking at the significance value of the data. If the significance value higher than 0.05 , it means the data is homogeneous. It was important because the similarity of both classes would influence the result of test. Moreover, homogeneity of a test was used also as a requirement to calculate $t_{\text {test }}$. The following tables are the output of test normality and homogeneity from SPSS:

Table 4.10. Normality Pre-test of Experiment Class and Control Class

| Tests of Normality |  |  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Pre-test Experiment and <br> Control | Kolmogorov-Smirnov |  |  | Shapiro-Wilk |  |  |  |
|  |  | Statistic | df | Sig. | Statistic | df | Sig. |
| Pre-test  <br> score Pre-test <br> Experiment <br> class (x) | .107 | 35 | $.200^{*}$ | .949 | 35 | .106 |  |
|  |  |  |  |  |  |  |  |


a. Lilliefors Significance Correction

According to result of the test, it can be seen that data of pre-test in both experiment and control class show normaly distributed with significance value of pre-test score in experiment class on Shapiro-Wilk was 0.106 is higher than $0.05(0.106>0.05)$. While, significance value of pre-test score in control class on Shapiro-Wilk was 0.250 also higher than 0.05 ( $0.250>0.05$ ).

Table 4.11.Normality Post-test of Experiment Class and Control Class

| Tests of Normality |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Post-test Experiment \& Control class | Kolmogorov-Smirnov ${ }^{\text {a }}$ |  |  | Shapiro-Wilk |  |  |
|  | Statistic | df | Sig. | Statistic | df | Sig. |
| Post-test Post-test <br> score Experiment class <br>  $(\mathrm{x})$ <br>  Post-test Control <br>  class $(\mathrm{y})$ | $\begin{aligned} & .102 \\ & .125 \end{aligned}$ | $35$ $35$ | $\begin{gathered} .200^{*} \\ .181^{*} \end{gathered}$ | $\begin{aligned} & .978 \\ & .960 \end{aligned}$ | 35 35 | .708 .234 |

a. Lilliefors Significance Correction

On the table 4.11 above, the significance value of post-test score in experiment class based on Shapiro-Wilk was 0.708 . While, the significance value of post-test score in control class based on Shapiro-Wilk was 0.234 . It means the data of post-test of both classes also normally distributed because 0.708 is higher than $0.05(0.708>0.05)$ and 0.234 is higher than 0.05 ( $0.234>0.05$ ).

Table 4.12. Homogeneity of Pre-test Result between Experiment Class and Control Class

| Test of Homogeneity of Variances |  |  |  |
| :--- | ---: | :---: | :---: |
| Pre-test score |  |  |  |
| Levene Statistic | df1 | df2 | Sig. |
| 1.093 |  | 1 | 68 |

According the table above, significance value is 0.299 . It is higher than $0.05(0.299>0.05)$. It could be concluded that the data of pre-test between experiment and control class were homogenous.

## Table 4.13. Homogeneity of Post-test Result between Experiment

 Class and Control Class| Test of Homogeneity of Variances |  |  |  |
| :--- | ---: | :---: | :---: |
| Post-test score |  |  |  |
| Levene Statistic | df1 | df2 | Sig. |
| 3.620 |  | 1 | 68 |

Besed on the table above, significance value is 0.061 , it is higher than $0.05(0.061>0.05)$. It can be infered that the data of post-test between experiment and control class were homogenous. By seeing the result of pre-test and post-test homogeneity, the researcher concluded that the data from two classes were homogenous so the $t_{\text {test }}$ could be counted.

After knowing the data were normally distributed and homogenous, the researcher calculated the data to test the hypothesis
whether there is significant different on students' score in reading comprehension of narrative text by using story mapping technique in experiment class and students' score in reading comprehension of narrative text without using story mapping technique in control class. The researcher calculated the data using t-test formula. Two classes were compared, the experiment class as variable X and the control class as variable Y.

The following table is statistical calculation of data gained score of both experiment class and control class:

Table 4.14. The Statistical Calculation of Gained Score of Each Students in

## Experiment Class and Control Class

| $\mathbf{N o}$ | Students <br> $(\mathbf{X})$ | Students <br> $(\mathbf{Y})$ | Gained <br> Score <br> $\boldsymbol{f} \mathbf{( X )}$ | Gained <br> Score <br> $\boldsymbol{f ( \mathbf { Y } )}$ | $\mathbf{X}$ | $\mathbf{Y}$ | $f(\mathbf{x})^{\mathbf{2}}$ | $\boldsymbol{f}(\mathbf{y})^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Student-A | Student-A | 12 | 12 | -3.77 | -0.11 | 14.2129 | 0.0121 |
| 2 | Student-B | Student-B | 16 | 8 | 0.23 | -4.11 | 0.0529 | 16.8921 |
| 3 | Student-C | Student-C | 12 | 24 | -3.77 | 11.89 | 14.2129 | 141.3721 |
| 4 | Student-D | Student-D | 32 | 8 | 16.23 | -4.11 | 263.4129 | 16.8921 |
| 5 | Student-E | Student-E | 16 | 12 | 0.23 | -0.11 | 0.0529 | 0.0121 |
| 6 | Student-F | Student-F | 20 | 24 | 4.23 | 11.89 | 17.8929 | 141.3721 |
| 7 | Student-G | Student-G | 4 | 12 | -11.77 | -0.11 | 138.5329 | 0.0121 |
| 8 | Student-H | Student-H | 24 | -4 | 8.23 | -16.11 | 67.7329 | 259.5321 |
| 9 | Student-I | Student-I | 16 | 12 | 0.23 | -0.11 | 0.0529 | 0.0121 |
| 10 | Student-J | Student-J | 12 | 8 | -3.77 | -4.11 | 14.2129 | 16.8921 |
| 11 | Student-K | Student-K | 12 | 12 | -3.77 | -0.11 | 14.2129 | 0.0121 |
| 12 | Student-L | Student-L | 16 | 24 | 0.23 | 11.89 | 0.0529 | 141.3721 |
| 13 | Student-M | Student-M | 0 | 16 | -15.77 | 3.89 | 248.6929 | 15.1321 |
| 14 | Student-N | Student-N | 12 | 20 | -3.77 | 7.89 | 14.2129 | 62.2521 |
| 15 | Student-O | Student-O | 16 | 8 | 0.23 | -4.11 | 0.0529 | 16.8921 |
| 16 | Student-P | Student-P | 8 | -4 | -7.77 | -16.11 | 60.3729 | 259.5321 |


| 17 | Student-Q | Student-Q | 24 | 20 | 8.23 | 7.89 | 67.7329 | 62.2521 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | Student-R | Student-R | 20 | 16 | 4.23 | 3.89 | 17.8929 | 15.1321 |
| 19 | Student-S | Student-S | 12 | 12 | -3.77 | -0.11 | 14.2129 | 0.0121 |
| 20 | Student-T | Student-T | 20 | 4 | 4.23 | -8.11 | 17.8929 | 65.7721 |
| 21 | Student-U | Student-U | 12 | 12 | -3.77 | -0.11 | 14.2129 | 0.0121 |
| 22 | Student-V | Student-V | 4 | 12 | -11.77 | -0.11 | 138.5329 | 0.0121 |
| 23 | Student-W | Student-W | 12 | 8 | -3.77 | -4.11 | 14.2129 | 16.8921 |
| 24 | Student-X | Student-X | 8 | 12 | -7.77 | -0.11 | 60.3729 | 0.0121 |
| 25 | Student-Y | Student-Y | 8 | 12 | -7.77 | -0.11 | 60.3729 | 0.0121 |
| 26 | Student-Z | Student-Z | 16 | 16 | 0.23 | 3.89 | 0.0529 | 15.1321 |
| 27 | Student- AA | Student- AA | 12 | 4 | -3.77 | -8.11 | 14.2129 | 65.7721 |
| 28 | StudentBB | StudentBB | 28 | 4 | 12.23 | -8.11 | 149.5729 | 65.7721 |
| 29 | Student- $\mathrm{CC}$ | Student- $\mathrm{CC}$ | 24 | 24 | 8.23 | 11.89 | 67.7329 | 141.3721 |
| 30 | Student- $\mathrm{DD}$ | Student- $\mathrm{DD}$ | 28 | 8 | 12.23 | -4.11 | 149.5729 | 16.8921 |
| 31 | StudentEE | Student- <br> EE | 20 | 16 | 4.23 | 3.89 | 17.8929 | 15.1321 |
| 32 | Student-FF | Student-FF | 12 | 4 | -3.77 | -8.11 | 14.2129 | 65.7721 |
| 33 | Student- GG | Student- GG | 24 | 28 | 8.23 | 15.89 | 67.7329 | 252.4921 |
| 34 | Student- $\mathrm{HH}$ | Student- $\mathrm{HH}$ | 24 | 12 | 8.23 | -0.11 | 67.7329 | 0.0121 |
| 35 | Student-II | Student-II | 16 | 8 | 0.23 | -4.11 | 0.0529 | 16.8921 |
| $\sum$ |  |  | 552 | 424 |  |  | 1821.4515 | 1903.5435 |
| Mean |  |  | 15.77 | 12.11 |  |  |  |  |

Based on the table above, it can be concluded that the total of gained score of the experiment class $(\mathrm{X})$ is 552 and the control class $(\mathrm{Y})$ is 424 . Then the researcher calculated $t$-test based on the procedure of the calculation by using the following formulas:

1. Determining mean of variable X (Experimental Class), with formula:
$M_{x}=\frac{\sum f x}{N_{x}}=\frac{552}{35}=15.77$
2. Determining mean of variable Y (Control Class), with formula:

$$
M_{y}=\frac{\sum f y}{N_{y}}=\frac{424}{35}=12.11
$$

3. Determining standard deviation of variable X , with formula:

$$
\begin{aligned}
S D_{x} & =\sqrt{\frac{\sum f x^{2}}{N_{x}}} \\
& =\sqrt{\frac{1821.4515}{35}}=\sqrt{52.04} \\
& =7.21
\end{aligned}
$$

4. Determining standard deviation of variable Y , with formula:

$$
\begin{aligned}
S D_{y} & =\sqrt{\frac{\sum f y^{2}}{N_{y}}} \\
& =\sqrt{\frac{1903.5435}{35}}=\sqrt{54.39} \\
& =7.37
\end{aligned}
$$

5. Determining standard error of mean variable $X$, with formula:

$$
S E_{m x}=\frac{S D_{x}}{\sqrt{N-1}}=\frac{7.21}{\sqrt{35-1}}=\frac{7.21}{\sqrt{34}}=\frac{7.21}{5.83}=1.24
$$

6. Determining standard error of mean variable Y , with formula:

$$
S E_{m y}=\frac{S D_{y}}{\sqrt{N-1}}=\frac{7.37}{\sqrt{35-1}}=\frac{7.37}{\sqrt{34}}=\frac{7.37}{5.83}=1.26
$$

7. Determining standard error of different mean variable $X$ and mean of variable Y, with formula:

$$
\begin{aligned}
S E_{m x-m y} & =\sqrt{S E_{m x^{2}}+S E_{M y^{2}}} \\
& =\sqrt{(1.24)^{2}+(1.26)^{2}} \\
& =\sqrt{1.5376+1.5876} \\
& =\sqrt{3.1252} \\
& =1.77
\end{aligned}
$$

8. Determining $\mathrm{t}_{\mathrm{c}}$, with formula:

$$
\begin{aligned}
t_{c} & =\frac{M_{x}-M_{y}}{S E_{m x-m y}} \\
& =\frac{15.77-12.11}{1.77} \\
& =\frac{3.66}{1.77}=2.07
\end{aligned}
$$

9. Determining t -table in significance level $5 \%$ with degrees of freedom (df), with formula:

$$
\begin{aligned}
d f & =\left(N_{1}+N_{2}\right)-2 \\
& =(35+35)-2 \\
& =70-2=68 \\
& =68 \text { in the significance level } 5 \%(0.05) \text { is } 2.00 \text { (see apendix) }
\end{aligned}
$$

From the calculation above the $\mathrm{t}_{\text {table }}$ value of $d f 68$ in the degrees of significance level $5 \%(0.05)$ is 2.00 . Based on the calculation data above, it can be seen that $\mathrm{t}_{\text {count }}$ is higher than $\mathrm{t}_{\text {table }}$. because $2.07>2.00$.

The final calculation was testing the hypothesis. This calculation to answer whether the students who were taught using story mapping technique gained significantly better score on reading comprehension of narrative text than students who were taught without using story mapping technique. Based on statement of hypothesis, the researcher formulate the hypothesis as follows:
a. Alternative Hypothesis $\left(\mathrm{H}_{\mathrm{a}}\right)$

The ninth grade students of MTsN 3 TAPIN who are taught by using story mapping technique in teaching reading comprehension of narrative text gain significantly better score on reading
comprehension of narrative text than students who are taught without using story mapping technique.
b. Null hypothesis $\left(\mathrm{H}_{0}\right)$

The ninth grade students of MTsN 3 TAPIN who are taught by using story mapping technique in teaching reading comprehension of narrative text do not gain significantly better score on reading comprehension of narrative text than students who are taught without using story mapping technique.

The criteria used to make decision as follows:

- If t-count $\left(\mathrm{t}_{\mathrm{c}}\right)>\mathrm{t}$-table $(\mathrm{t} \mathrm{t})$ in significant degree of $0.05, \mathrm{Ha}_{\mathrm{a}}$ (alternative hypothesis) is accepted and $\mathrm{H}_{\mathrm{o}}$ (null hypothesis) is rejected.
- If t -count $(\mathrm{t} \mathrm{c})<\mathrm{t}$-table $(\mathrm{t} \mathrm{t})$ in significant degree of $0.05, \mathrm{H}_{\mathrm{o}}$ (the null hypothesis) is accepted and $\mathrm{H}_{\mathrm{a}}$ (alternative hypothesis) is rejected.

Based on result of $\mathrm{t}_{\text {test }}$ the value $\mathrm{t}_{\text {count }}=2.07$ and the value of $\mathrm{t}_{\text {table }}$ with $d f$ 68 in the degrees of significance level $5 \%(0.05)$ is 2.00 it can be infered that $t_{c}>$ $\mathrm{t}_{\text {table }}(2.07>2.00)$. Hence, the alternative hypothesis $\left(\mathrm{H}_{\mathrm{a}}\right)$ is accepted and the null hypothesis $\left(\mathrm{H}_{\mathrm{o}}\right)$ is rejected. It means the ninth grade students of MTsN 3 Tapin who were taught using story mapping technique gained significantly better score on reading comprehension of narrative text than students who were taught without using story mapping technique.

