

CHAPTER IV

RESEARCHER FINDING AND DISCUSSION

In this chapter explains the findings from the results of analyzing the data in the study. Hence, this chapter explains the description of data, hypothesis testing and discussion in study.

A. The Description of Data

In this chapter, the purpose of doing this study is to know the effectiveness of using story mapping on students of reading narrative text. In this study, the researcher used the test in collecting data, namely pre-test and post-test. In this study, the researcher used the subject, namely the eighth grade students of VIII-A at SMPN 1 SUMBERGEMPOL. The researcher used multiple choice tests with 10 questions given to 20 students in the study.

Before treatment using story mapping technique in teaching reading skills in narrative text, the researcher gave reading test to students, namely the pre-test. This test is useful for measuring and knowing student achievement in reading narrative text skills before students got treatment using story mapping technique.

After the researcher carried out the pre-test and got the results of the student's pre-test, the researcher conducted the next stage of the research which is giving treatment to students about the story mapping technique. When the researcher finished giving treatment, students felt interested in trying to use story

mapping from text. They felt interested because they can describe the story, and they found it easier to learn narrative text using this technique.

After the researcher gave the treatment, the students had felt interested and understood with the technique that had been taught, the researcher gave the last research phase, post-test. Post-test purposes to find out the comparison of students' reading skills about narrative text before and after being given treatment using story mapping technique. In this post-test, the researcher asked students to answer multiple choice questions that have 10 questions about narrative text. The researcher wanted to know the extent to which students know the description of the story text and remember the elements in the story that are given treatment time. And after, the researcher knew the results; it is proven that after treating students' reading skills increase from previous reading skills.

Based on the statement above, in this study there were 20 students who were given pre-test and post-test. The same test used multiple choices but only questions and different narrative texts. For the test assessment above, there are 5 criteria (table 4.1).

Table 4.1 Criteria Student's Score

Score	Criteria
90 – 100	Excellent
80 – 90	Good
70 – 80	Average
60 – 70	Poor

0 – 60	Very Poor
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Based on Table 4.1 above it can be explained that, if the students' score is 90 – 100 then the criteria score is very good (excellent), the students' score is 80 – 90 is then the criteria score is good, the students' score is 70 – 80 then the criteria score is average, the students' score is 60 – 70 then the criteria score is poor, and if the lowest students' score is 0 - 60 then the criteria score got is very poor.

The procedures of teaching using story mapping technique are as follows:

- a) The researcher introduces the concept of story mapping and its benefits to students in reading skills, especially narrative text. The researcher explain students that story mapping can help them understand narrative texts.
- b) The researcher explains the generic structure of narrative text which will be a component of the story mapping. The narrative component is the title, settings (where and when), main characters, problems, events, and resolutions.
- c) The researcher asks students to read the narrative story text given to them. in addition, the researcher also emphasized several content points that were important for students to understand.
- d) The researcher asks students to fill out the story mapping worksheet according to the narrative story text.
- e) The researcher guides them to find their mistakes so students read their stories again and correct their mistakes. The researcher also uses direct questions to make them focus on reading targets.

- f) After filling out the story mapping, the researcher and students discuss the worksheet. Then, the researcher asks students to read it while researcher still questions the element of story mapping. After that, the researcher gave feedback and evaluation of their answers.
- g) the researcher gives several exercises conducted individually to evaluate students' understanding of the story mapping technique in narrative text learning

1) The Result of Students' Score before Treatment by Using Story Mapping Technique

In this pre-test has 10 items of questions that the researcher gave to 20 students. Here, the pre-test is done before doing the story mapping technique treatment. This test is given by researcher to students to find out students' reading skills before they got treatment. In this study, the pre-test was carried out on May 18th, 2018 and the subject of this test was 20 students. The pre-test value is in the table (table 4.1)

Table 4.2 Score of Students Pre-test

No	Subject	Pre-test Score										Total Score
		1	2	3	4	5	6	7	8	9	10	
1	AKE	10	10	10	0	10	10	10	10	0	0	70
2	ANMS	10	10	10	10	10	10	10	10	0	0	80
3	APP	10	10	0	10	10	10	10	10	0	10	80
4	AAS	0	10	10	10	10	10	10	0	10	10	80
5	AN	10	0	10	10	10	10	10	0	10	10	80

6	EFR	10	10	10	0	10	10	10	10	0	0	70
7	EV	10	10	10	10	10	10	0	10	10	0	80
8	FB	0	10	10	10	10	10	0	10	10	0	70
9	HN	0	10	10	10	10	10	10	10	10	0	80
10	LDP	10	0	10	10	10	10	0	10	10	10	80
11	MBS	10	10	0	10	10	10	10	10	0	10	80
12	MDRD	10	10	10	10	10	10	0	10	0	0	70
13	MEDN	10	10	10	0	10	10	10	10	10	0	80
14	MYA	10	10	10	10	10	10	0	10	10	0	70
15	NM	10	0	10	10	0	10	10	10	10	0	70
16	PD	0	10	10	0	10	10	10	10	10	0	70
17	RANJ	10	10	10	10	0	10	0	10	10	10	80
18	TASD	10	10	10	0	0	10	10	10	10	0	70
19	VNA	10	10	10	10	10	10	0	0	10	10	80
20	VN	10	10	10	0	0	10	10	10	10	10	80
		160	170	170	130	160	200	130	170	140	80	$\Sigma X =$ 1520

From results of the students' scores on the pre-test according to the students' score criteria above. It could be explained that there were 12 students had a good score. It means, 12 students got a score of 80.0 in the pre-test. And 8 students had an average score. It means, 8 students got a score of 70.0 in the pre-test. After that, the researcher calculated the average score of all student total

scores by means of all student total scores divided by the number of all students, such as the following formula:

$$\bar{x} = \frac{\sum x}{n} = \frac{1520}{20} = 76.0$$

The mean score of students pre-test was 76.0

Table 4.3 Descriptive Statistic of Pre-test

Statistics

VAR00001

N	Valid	20
	Missing	0
Mean		76.0000
Median		80.0000
Mode		80.00
Std. Deviation		5.02625

a. Multiple modes exist. The smallest value is shown

Seen from table 4.3. The researcher is showed that the mean score of pre-test was 76.0; the purpose of the explanation was the average score of the pre-test score of 20 students was 76.0. From the results of the mean, it can be concluded that the mean level of student competency scores in reading skills, especially narrative text, has a level score that is not too good or bad, so the mean level of competency scores got by students is average score level. The median score of pre-test was 80.0. With the median result, it can be concluded that the boundary

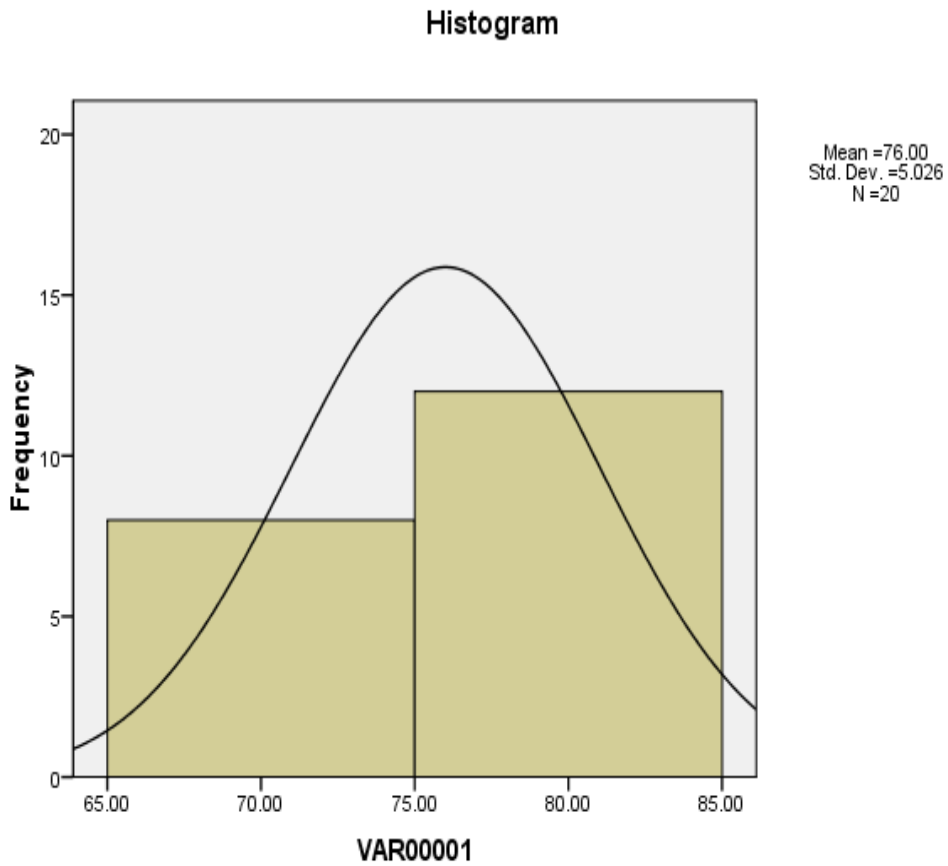
between the 2 student competency score levels which score was got from the 50% score division of the top student score and 50% score division of the down student score so that the median could be 80.0 and it is the average score level. The result of the score mode of pre-test was 80.0. The mode is the value that often appears or the highest frequency score. It is seen from the pre-test score to measure the level of students' reading skill, most students in this pre-test get a score of 80.0 which score is included in the average score level. And the result of the standard deviation in the assessment of the student's pre-test score above was 5.026.

Table 4.4 Frequency of Pre-test score

VAR00001

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 70	8	40.0	40.0	40.0
80	12	60.0	60.0	100.0
Total	20	100.0	100.0	

Figure 4.1 Histogram of pre-test



Seen from table 4.4, it can be shown that 8 students (40.0%) got a score of 70.0, meaning that the students at SMPN 1 SUMBERGEMPOL in their reading skills ability got a score level that is the average score level. Then, there were 12 students (60.0%) got a score of 80.0, meaning that the students at SMPN 1 SUMBERGEMPOL in their reading skills ability got a score level that is the good score level. So, it can be concluded that the students of SMPN 1

11	MBS	10	10	0	10	10	10	10	10	0	10	80
12	MDRD	10	10	10	10	10	10	0	10	0	0	70
13	MEDN	10	10	10	10	10	10	10	10	10	10	100
14	MYA	10	10	10	10	10	10	10	10	10	0	90
15	NM	10	0	10	10	0	10	10	10	10	0	70
16	PD	10	10	10	10	10	10	10	10	10	10	100
17	RANJ	10	10	10	10	0	10	0	10	10	10	80
18	TASD	10	10	10	0	0	10	10	10	10	0	70
19	VNA	10	10	10	10	10	10	10	10	10	10	100
20	VN	10	10	10	0	10	10	10	10	10	10	90
		180	170	180	170	170	200	160	200	160	130	$\Sigma X =$ 1720

From results of the students' score on the post-test according to the students' score criteria above. It could be explained that there were 4 students had a average score. It means, 4 students got a score of 70.0 in the post-test. 4 students had a good score. It means, 4 students got a score of 80.0. And 12 students had a excellent score. It means, 12 students got a score of 90.0 and 100.0. After that, the researcher calculated the average score of all student total scores by means of all student total scores divided by the number of all students, such as the following formula:

$$\bar{x} = \frac{\Sigma x}{n} = \frac{1720}{20} = 86.0$$

The mean score of students post-test was 86.0

Table 4.6 Descriptive Statistic of Post-test

Statistics

VAR00002

N	Valid	20
	Missing	0
Mean		86.0000
Median		90.0000
Mode		90.00
Std. Deviation		10.4620

a. Multiple modes exist. The smallest value is shown

Seen from table 4.6. The researcher is showed that the results of the mean , median and mode score after getting the Story Mapping Technique treatment that is when doing a post-test, students' score experience a lot of improvement in reading skill competency levels, especially narrative text rather than the results when doing the pre-test conducted before getting the Story Mapping Technique treatment. The researcher is showed that the mean score of post-test was 86.0; the purpose of the explanation was the average score of the post-test score of 20 students was 86.0. From the results of the mean, it can be concluded that the mean level of student competency scores in reading skills, especially narrative text, has a level score that is good, so the mean level of competency scores got by students is good score level. The median score of post-test was 90.0. With the median result, it can be concluded that the boundary between the 2 student competency score levels which score was got from the 50% score division of the top student

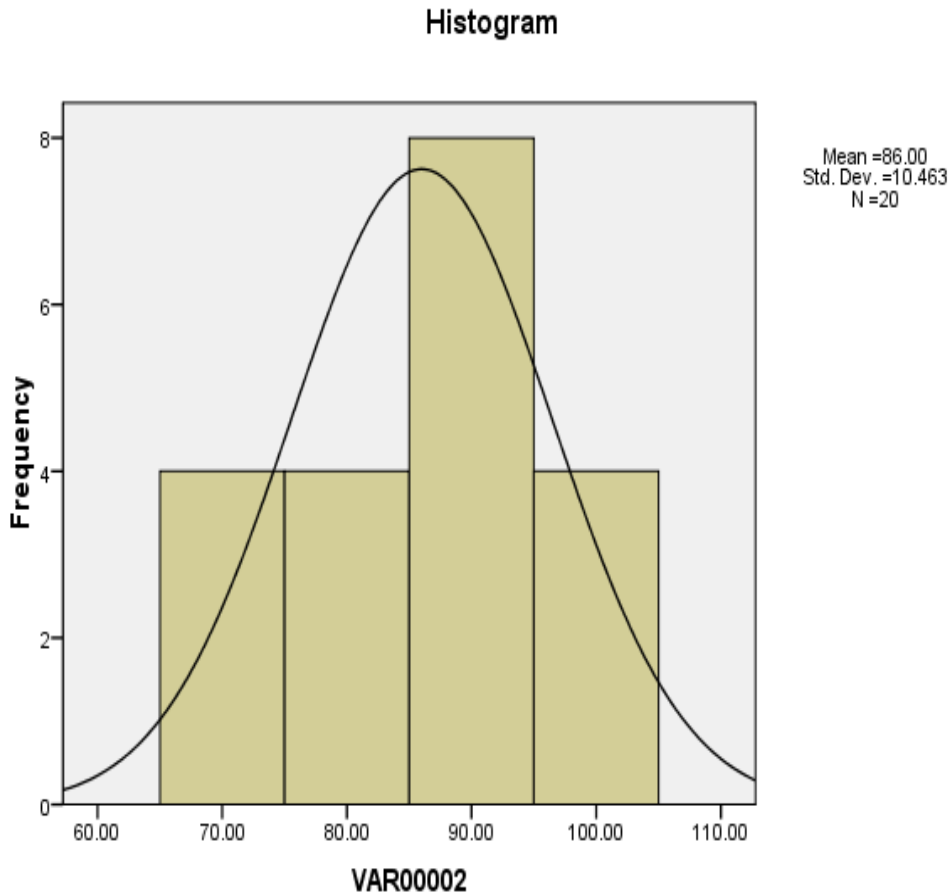
score and 50% score division of the down student score so that the median could be 90.0 and it is the excellent score level. The result of the score mode of post-test was 90.0. The mode is the value that often appears or the highest frequency score. It is seen from the post-test score to measure the level of students' reading skill, most students in this post-test get a score of 90.0 which score is included in the excellent score level. And the result of the standard deviation in the assessment of the student's post-test score above was 10.462.

Table 4.7 Frequency of Post-test score

VAR00002

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 70	4	20.0	20.0	20.0
80	4	20.0	20.0	40.0
90	8	40.0	40.0	80.0
100	4	20.0	20.0	100.0
Total	20	100.0	100.0	

Figure 4.2 Histogram of Post – test



Seen from table 4.7, it can be shown that 4 students (20.0%) got score 70.0, meaning that of the explanation was the students at SMPN 1 SUMBERGEMPOL in their reading skills ability got a score level is the average score level. There were 4 students (20.0%) got score 80.0, meaning that the students at SMPN 1 SUMBERGEMPOL in the reading skills ability got a score level is the good score level. There were 8 students (40.0%) got score 90.0, meaning that the students at SMPN 1 SUMBERGEMPOL in the reading skills ability got a score level is excellent score level and it became the mode score that

the highest frequency scores. There were 4 students (20.0%) got score 100.0, meaning that the students at SMPN 1 SUMBERGEMPOL in the reading skills ability got a score level is the excellent score level.

3) The Effectiveness of Students' Reading Skill before and after Treatment using Story Mapping Technique

After the researcher got the results of the pre-test and post-test, namely in the form of a score. Then, the researcher conducted something that was analyzing data from the score that has been got. Here, data analysis was used by researchers to find out the difference between the scores got before and after getting the story mapping technique treatment by determining the gain "d" (post-test - pre-test) and the overall gain score (d^2). The results of determining the difference between post-test and pre-test are significant in the table (4.8) below.

Table 4.8 The Significant Difference before and after Treatment using Story Mapping Technique

No	Subject	Pre – test	Post –test	Gain (d) post-test – pre-test	d^2
1	AKE	70	90	20	400
2	ANMS	80	90	10	100
3	APP	80	80	0	0
4	AAS	80	100	20	400
5	AN	80	90	10	100
6	EFR	70	80	10	100
7	EV	80	90	10	100

8	FB	70	70	0	0
9	HN	80	90	10	100
10	LDP	80	90	10	100
11	MBS	80	80	0	0
12	MDRD	70	70	0	0
13	MEDN	80	100	20	400
14	MYA	70	90	20	400
15	NM	70	70	0	0
16	PD	70	100	30	900
17	RANJ	80	80	0	0
18	TASD	70	70	0	0
19	VNA	80	100	20	400
20	VN	80	90	10	100
		X = 1520	Y = 1720	$\sum d = 200$	$\sum d^2 = 3600$

a. Identify mean

$$d = \frac{\sum d}{n} = \frac{200}{20} = 10$$

The identify mean was 10

b. Identify t-score

$$t = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}$$

$$= \frac{10}{\sqrt{\frac{3600 - \frac{200^2}{20}}{20(20-1)}}$$

$$= \frac{10}{\sqrt{\frac{3600 - 2000}{380}}}$$

$$= \frac{10}{\sqrt{\frac{1600}{380}}}$$

$$= \frac{10}{\sqrt{4.21}}$$

$$= \frac{10}{2.05} = 4.86$$

c. Degree of freedom

$$df = n - 1$$

$$= 20 - 1 = 19$$

The Degree of freedom was 19

The results of the above will be the same when the researcher conducted statistical tests by using computation paired sample t-test in the SPSS 16.0 as follows:

Table 4.9 Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRETEST	76.0000	20	5.02625	1.12390
	POSTTEST	86.0000	20	10.46297	2.33959

Explanation of the data above explained the results performance of students' reading skill scores produced before and after getting the story mapping technique treatment. Here the total of all students (N) both pre-test and post-test were 20 students. The average result of the pre-test score was 76.0000. The data distribution (Std. Deviation) got from the mean score of the pre-test conducted by 20 students is 5.02625 by producing a standard error mean of 1.12390. And the average result of the post-test score was 86.0000. The data distribution (Std. Deviation) got from the mean score of the post-test conducted by 20 students is 10.46297 by producing a standard error mean of 2.33959. This shows the post-test is higher than the pre-test. But the post-test data distribution range also becomes wider and with higher standard errors. So, it can be concluded that the results of the post-test have increased

Table 4.10 Paired Sample Correlations

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 PRETEST & POSTTEST	20	.480	.032

Explanation of the data above explained the results of correlations students' reading skill scores produced before and after getting the story mapping technique treatment. Here, the totals of students both pre-test and post-test were 20 students. The correlation result of between the pre-test and post-test were .480. The significant result of between the pre-test and post-test were .032.

Table 4.11 Paired Sample Test

Paired Samples Test

	Paired Differences					t	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PRETEST - POSTTEST	1.00000	9.17663	2.05196	-14.29479	-5.70521	-4.873	19	.000

Explanation of the data on the table 4.11, paired samples test explains the results of the comparison analysis using a test that was t-test. The difference means score of between the pre-test and post-test was 1.00000. The difference Standard deviation score of between the pre-test and post-test was 9.17663, mean standard error was 2.05196, the lower different was -14.29479 , while the upper different was -5.70521 . The result t_{count} was 4.873 (symbol of minus is ignored) with df was 19 and significance (2-tailed) was 0.000.

It can be interpreted that the significance (2-tailed) value was smaller than the significance level, namely $(0.00 < 0.05)$. So it can be concluded that the Story Mapping Technique can increase the students' reading skill especially narrative text and it is effective toward students' reading skill.

Then, the researcher got the results of the t_{count} comparison with the t_{table} which results from degree of freedom $(df) = N - 1 = 20 - 1 = 19$, so it can be concluded that df was 19 according to the formula results. In the score t_{table} the researcher saw that the score t_{table} was 4,860. By comparing "t" the researcher has got the calculation that t_{count} was 4,873 and t_{table} was 4,860. So it can be interpreted that the score t_{count} is bigger than the score of the t_{table} that was $(4,873 > 4,860)$. So it can be concluded that the alternative hypothesis was accepted while the null hypothesis was rejected from the results.

It can be seen clearly that significant different in students' reading skills before and after getting treatment by using story mapping technique.

B. Hypothesis Testing

In the experimental study, hypothesis testing was divided into 2 namely the null hypothesis and alternative hypothesis.

a. Null Hypothesis (H_0)

It can be called null hypothesis if t_{count} is smaller than t_{table} , so the null hypothesis is accepted while the alternative hypothesis is rejected. The reason for this was because the comparison was not significant between the scores of students' reading skills before and after being given treatment by mapping the eighth grade students at SMPN 1 SUMBERGEMPOL.

b. Alternative Hypothesis (H_a)

It can be called alternative hypothesis if t_{count} is bigger than t_{table} , so the alternative hypothesis is accepted while the null hypothesis is rejected. The reason for this is because the comparison was significant between the scores of students' reading skills before and after being given treatment by mapping the eighth grade students at SMPN 1 SUMBERGEMPOL.

In the hypothesis testing, if the null hypothesis (H_0) was rejected so the alternative hypothesis (H_a) was accepted while if the null hypothesis (H_0) was accepted so the alternative hypothesis was rejected. So that the researcher known the significant level is bigger or smaller than the t_{table} , the researcher used SPSS statistics 16.0 after knowing the results; the researcher explained that the hypothesis was the null hypothesis or alternative hypothesis.

By calculating data using SPSS 16.0, it can be seen that the value results from t_{count} was 4.873 while t_{table} was 4.860. So, the t_{count} is bigger than t_{table} (4.873

> 4.860). It can be concluded that alternative hypothesis was significant between the scores of students' reading skills ability before and after being given treatment by story mapping technique was accepted. But, null hypothesis was significant between the scores of students' reading skills ability before and after being given treatment by story mapping technique was rejected. It can be concluded if there was significant between the scores of students' reading skills ability before and after being given treatment by mapping the eighth grade students at SMPN 1 SUMBERGEMPOL. With this, it can be ascertained that story mapping technique was very effective to be used in students' reading skills especially narrative text. And with increasing students' reading scores using story mapping technique, this technique is expected to be used in teaching reading especially for the eighth grade at SMPN 1 SUMBERGEMPOL.

C. Discussion

The object to be researched in this study is to find the score of reading skill of the students on the eighth grade (VIII A) at SMPN 1 SUMBERGEMPOL before and after being given treatment by story mapping technique. The researcher found a very drastic difference in students' reading skill scores before and after being got treatment by story mapping technique. The difference in scores that have a very drastic improvement experienced by students, because using story mapping techniques in narrative text students feel interested and they are easier to understand the narrative text they read.

The researcher used test as instrument of the study to get the data and the method to collect the data is administering test. The researcher used multiple choice tests as instrument in collecting data. The researcher conducted some steps

to attain the objectives of the researcher. The researcher did some steps, there are administering pre-test, giving treatment in VIII A class, and administering post-test.

Based on the score that the researcher got from pre-test and post-test. The researcher analyzed the data by using paired sample t-test on SPSS 16.0. The output paired sample statistic shown that the mean score pre-test is 76.0 and the mean score post-test is 86.0 which can be interpreted that the reading skill of the students had been improved after getting treatment Story Mapping technique. The difference means score of between the pre-test and post-test was 1.00000. The difference Standard deviation score of between the pre-test and post-test was 9.17663, mean standard error was 2.05196, the lower different was -14.29479 , while the upper different was -5.70521 . On the output of paired sample test shown that the score of t_{count} is 4.873 with the df 19, the score of level significance is 0.000 and the score of t_{table} for standard significant 5% (0.05) and df 19 is 4.860. Based on the data, the researcher knows that t_{count} bigger than t_{table} ($4.873 > 4.860$) means that the null hypothesis (H_0) was rejected, alternative hypothesis (H_a) is accepted, and the level of significance less than 0.05 ($0.000 < 0.05$) means that the null hypothesis (H_0) is rejected, alternative hypothesis (H_a) was accepted. It be concluded that there is significant different scores of the students in reading skill before and after giving treatment by Story Mapping technique of the eight grade students, especially VIII A students at SMPN 1 SUMBERGEMPOL. It means that the Story Mapping is effective toward students' reading skill.

The researcher modified the graphic of Story Map for reading skill that appropriate with the eighth grade to make them interested. There are many kind of

Story Mapping figures. And this Story Mapping technique can be used effectively in the classroom to increase students' reading skill the eighth grade.

The finding is related with the previous study that is using Story Mapping technique to teach reading skill. In the previous study using Story Mapping technique can have a positive impact on the success of teaching reading skills in narrative text by conducting descriptive research. Kukuh Prakumasari (2015) state that one of the result of Story Mapping technique is the students are more motivated to learn. They are more active and interested in teaching – learning process.

Based on the explanation above, teaching reading by Story Mapping technique is good to improve students' reading skill of the eighth grade at Junior High School. From the result of data analysis, the null hypothesis (H_0) is rejected, alternative hypothesis (H_a) was accepted. There is significant different scores of the students in reading skill before and after giving treatment by Story Mapping technique. It can be conclude that Story Mapping technique is effective toward students' reading skill of the eighth grade at SMPN 1 SUMBERGEMPOL.