

CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

This chapter presents the data that have been collected in the research. The researcher did the research started on 16 July to August in 2018. Here, the researcher describes about the result of the research on the field that collected by test. English learning process at MTs Muhammadiyah 3 Al Furqan for eighth grade students takes place once in a week. It is on Thursday for class VIII F and class VIII G which are taught by Mrs. Eka Mardewiwy S.Pd.

The presentation covers primary data about the effectiveness of using Thinking Maps in teaching students' reading comprehension on narrative text at the eighth grade of MTs Muhammadiyah 3 Al- Furqan. There were two classes that the researcher used to do the research, consisting of eighth grade of students. They were eighth grade of VIII F in Experiment Class who used Thinking Maps and VIII G in Control Class who did not use Thinking Maps. To find out the reading comprehension achievement on narrative text of students who were taught using Thinking Maps and taught without it, the researcher had given both classes pre-test and post-test. The result of the tests will show the improvement of students' reading comprehension as well as the different scores they got in both classes.

The results were then analyzed by statistical calculation of T-test. It was applied to find the significant difference of mean score of both classes. The

following writing is presented to describe the results of the research, based on the statement of problem written in chapter I.

1. Students' Achievement in Reading Comprehension on Narrative Text in Experiment Class at MTs Muhammadiyah 3 Al Furqan

To know the students' achievement reading comprehension on narrative text in experiment class, the researcher gave post-test in written test. The researcher used SPSS 22 to make easier to count the result of the test. The result of the test will be described in the following table:

Table 4.1 The Result of Students' Test in Experiment Class

NO	NAME	PRE-TEST	POST-TEST
1	ZAIN	55	90
2	NUR	35	75
3	LIYA	65	85
4	LYSSA	60	80
5	YANI	65	95
6	NISA	65	80
7	KIA	50	80
8	RITA	65	80
9	MILIA	60	80
10	FEBY	55	85
11	GHINA	55	75
12	INA	50	85

13	GUSTI	65	95
14	KHAIR	50	90
15	IFAH	65	75
16	FADIL	55	80
17	DZAKWAN	60	85
18	IRFAN	65	90
19	RAIHAN	55	80
20	TIA	50	85
21	NADILA	55	80
22	PUTRI	60	85
23	NOFA	50	75
24	AZIZA	45	70
25	HIKMAH	50	75
26	AINA	30	75
27	RIFKA	60	85
28	HADI	60	90
29	AMELIA	60	85
30	SHOFA	65	85
31	SITI	60	80
32	SRI	45	75
Total		2630	1785
Mean Score		82.19	55.78

After the data were counted by using SPSS 22, the researcher saw that the mean score of post-test was 82.19. Thus, the students' achievement in reading comprehension on narrative text after using Thinking Maps was 82.19. It is categorized very good.

2. Students' Achievement in Reading Comprehension on Narrative Text in Control Class at MTs Muhammadiyah 3 Al Furqan

To know the students' achievement on reading comprehension in control class, the researcher gave post-test for the students. Then the researcher used SPSS 22 to make easier to count the result of the test. The result can be seen in the following table.

Table 4.2 The Result of Students' Test in Control Class

NO	NAME	PRE-TEST	POST-TEST
1	GIFARI	30	40
2	RIFKY	60	85
3	DIAH	50	75
4	NIA	55	70
5	ANNISA	60	75
6	DINA	45	75
7	SHAFI	75	75
8	HADID	45	50

9	MANDA	60	65
10	INDAH	50	60
11	LUTFAH	50	45
12	RADHIT	65	60
13	RIZAL	50	50
14	ILYAS	25	75
15	AKRAM	35	70
16	JAMIL	55	70
17	AMIN	60	70
18	FEBRIAN	55	75
19	KHAIRIL	65	75
20	RIZKY	25	70
21	ZHALDY	45	50
22	AZMI	55	80
23	NAUFAL	65	70
24	NUR	60	85
25	RAISA	50	25
26	SAID	65	80
27	PARHAN	65	80
28	TAMARA	40	70
29	YASMINE	60	85
30	ZAIDAN	60	70

31	FAIZAL	65	75
Total		2100	1645
Mean Score		67.74	53.06

After the data were counted by using SPSS 22, the researcher knows that the mean score of post-test was 67.74. Thus, the students' achievement in reading comprehension on narrative text in control class who were taught without using Thinking Maps at the eighth grade VIII G of MTs Muhammadiyah 3 Al Furqan academic year 2018/2019 is 67.74. It is categorized fair.

However, both classes have a little different in their students' achievement in reading comprehension on narrative text. The mean score of students' achievement on Reading Comprehension in experiment class is 82.19, and the mean score of students' achievement in control class is 67.74. It means that the students' achievement on reading comprehension in experiment class is bigger than of that in control class ($82.19 > 67.74$). Since the mean score of students in experiment class is bigger than that of control class, it could be said that the use of Thinking Maps in teaching reading comprehension is effective. Of course, this is not enough to see it. Detailed calculation is needed to convince the result of the research as explained in the following discussion.

3. The Effectiveness of Using Thinking Maps in Teaching Reading Comprehension of Narrative Text at MTs Muhammadiyah 3 Al Furqan

One way to describe the effectiveness of using Thinking Maps in teaching Reading Comprehension is to see the difference between the mean score in experiment class and in control class as described in previous writing. To have detailed calculation information way should be followed by seeing the significant difference between the mean score of the two groups.

Based on the data, the mean score of experiment class is 82.19 and the mean score of control class is 67.74. The problem is that whether the difference score between experiment class and control class is significant or not. The application of a statistical calculation is important. There are some steps used to apply. First, finding the normality of data distribution. Second, finding the homogeneity of the test. Third, using the T-test.

a). Normality Test

Normality test is performed to determine the normality of data distribution in using the students test with real Liliefors, $\alpha = 0,05$ along with the hypothesis:

H_0 : the data did not distribute normally

H_a : the data distributed normally

So, if Significance score $> 0,05$, H_a was accepted and H_0 was rejected.

Otherwise, if

Significance score $< 0,05$, H_a was rejected and H_0 was accepted.

Normality Test of Post-test

Table 4.3. Normality Test of the Ability of Students

Test of Normality

	Class	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Experiment	1	.144	32	.092	.942	32	.083
Control	2	.254	31	.052	.896	31	.061

a. Lilliefors Significance Correction

Based on the table above, by using Kolmogorov-Smirnov and Shapiro-Wilk, it is seen that the data have significant value for experiment class (0.092 and 0,083) and for control class (0,052 and 0,061). Because the significant value of experiment class is bigger than 0,05% ($0,092 > 0,05$) or ($0,083 > 0,05$), the ability of students in experiment class is normally distributed. So, H_a was accepted and H_0 was rejected.

b). Homogeneity test

This test is used to see the homogeneity of subject or sample of the students in experiment and control class.

After the data are normally distributed, then the researcher will see the variance of homogeneity test. The test purpose is to know whether sample of the experiment class and control class are homogen or not.

1). Homogeneity Test of Pre-test

Let us see the following table:

Table 4.4 Test of Homogeneity of Variances

Experiment and Control

Levene Statistic	df1	df2	Sig.
3.277	1	61	.075

The researcher used homogeneity test via SPSS 22. Based on the output result of variance of homogeneity test of pre-test in table 4.4, the significance value is 0,075. Because 0,075 is bigger than 0,05 ($0,075 > 0,05$), it can be concluded that the students in experiment class and control class are homogent.

2). Homogeneity Test of Post-test

Table 4.5 Test of Homogeneity of Variances

Experiment and Control

Levene Statistic	df1	df2	Sig.
10.166	1	61	.160

Based on the output result of variance of homogeneity test of post-test and Levene test in table 4.5, the significant value is 0,160. Because 0,160 is bigger than 0,05 ($0,160 > 0,05$), it can be concluded that students in experiment class and control class are homogent.

c). T-test

Independent sample T-test is used to compare the mean score of two independent subjects or samples between experiment class and control class. By comparing, it will be seen the significant different of both groups.

After normal distribution of data is known and the variance of both students in experiment class and control class is homogent, then T-test is used to determine whether the difference of mean score between experiment class and control class is significant or not. In this case, independent sample T-test is used as seen in Table 4.6 in the next page. In relation to the T-test, there are two hypothesis to prove.

H_0 : There is no significant difference of mean score between students' reading comprehension in experiment class and control class

H_a : There is a significant difference of mean score between students' reading comprehension in experiment class and control class

Table 4.6 The Result of T-test

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Experiment	1	32	82.19	6.214	1.098
Control	2	31	67.74	14.133	2.538

Independent Sample Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2- taile d)	Mean Differe nce	Std. Error Differ ence	95% Confidence Interval of the Difference	
									Lower	Upper
Experiment Control	Equal variance s assumed	10.166	.162	5.280	61	.046	14.446	2.736	8.975	19.91
	Equal variance s not assumed			5.223	40.900	.046	14.446	2.766	8.860	20.03

In the table 4.6, the mean score of experiment class is 82.19 and the mean score of control class is 67.74. So, the score of class which used Thinking Maps is higher than the class without using Thinking Maps ($82.19 > 67.74$).

The table shows that, the price of t_c is 5.280 (Table 4.6), while t_t is 1.67022 (seen in appendix 2), so t_c is bigger than t_t ($5.280 > 1.67022$). The meaning is that, there is a significant difference of mean score between the students' reading

comprehension in experiment class and control class. Thus, H_0 is rejected and H_a is accepted. It means that the use of Thinking Maps is effective or has significant effect on teaching reading comprehension of narrative text at MTs Muhammadiyah 3 Al Furqan.

B. Discussion

Based on the findings, the researcher found out a difference mean score between the students who used Thinking Maps and did not use Thinking Maps. The mean score of the students who used Thinking Maps is 82.19. It means that the achievement of students in reading comprehension on narrative text who used Thinking Maps is very good category. In the other hand, the mean score of students who did not use Thinking Maps is 67.74. It means that their achievement in the reading comprehension on narrative text is fair category. Then, related to the data that have counted, the researcher found the result of the test that $t_{count} (t_0)$ is higher than t_t (t table). The conclusion is that there is a significant difference of mean score in reading comprehension on narrative text between the students who were taught by using Thinking Maps and using no Thinking Maps. Thus, the students who were taught by using Thinking Maps could influence their reading comprehension ability than the students who were not using Thinking Maps.

1. Students' Achievement on Reading Comprehension in Experiment Class

In the experiment class, the teacher gave the students an explanation of narrative text, like definition, structure and examples of the narrative text, and the students should be able to identify its structure when the researcher gave the

examples of narrative text. Next, they should be able to write their structure using Thinking Maps through a flow map. In addition, they should be able to decide where the orientation, complication, resolution and coda. At last, the researcher gave them a story of narrative text and all students should be able to answer it using flow map.

Based on their answers, after having calculated by using SPSS 22, the mean score of students in experiment class is 82.19 (see table 4.1). Thus, their achievement in reading comprehension on narrative text is categorized very good.

However, based on the observation during the teaching and learning process, the researcher noted some points:

- a. The students were very excited to read this text because it related with visual method.
- b. The students enjoyed their reading because using map could help them to make drawing.
- c. The students were easy to answer the questions.
- d. The students were easy to understand the content of the story.

So, the students did their reading comprehension easier. It seems that the condition is in line or suitable to what Murbiyati (2015) said. She said, "Thinking Maps is a visual method because a picture map. Then, Thinking Maps make a concept of material or lesson which to easy for writing and understand".

2. Students' Achievement on Reading Comprehension in Control Class

Actually, the student were not so excited with the ordinary method like Reading Guide which used in this class. Consequently, class became bored, and

they were difficult to understand the story well. Based on the result of the test, their mean score was 67.74 (see table 4.2), which belongs to fair. As the result, their achievement is lower than the students in experiment class.

Otherwise, the mean score of students in experiment class was 82.19 (see table 4.1). So, the students' achievement in control class is lower than that of experiment class ($67.74 < 82.19$).

Based on the observation in control class, the researcher could see some problems happened during the teaching and learning process in the class, for examples:

- a. Some of the students got bored in the class.
- b. Some of the students were difficult to understand the content of the text.
- c. They were careless to answer the questions.

Therefore, by comparing the students' achievement of both classes, it can be said that the use of Thinking Maps is effective to improve students' reading comprehension.

3. The Effectiveness of Using of Thinking Maps to Improve Students' Reading Comprehension.

Statistical measurement has shown that Thinking Maps has significant effect to improve the students' reading comprehension. The students who were taught with Thinking Maps in experiment class showed better than that of control class. The mean score of post-test of control class is 67.74, while the mean score of post-test of experimental class is 82.18. So, the fair score of post-test of

experimental class higher than the fair score of post-test of control class ($82.18 > 67.74$). Meanwhile, the mean score of pre-test to post-test in experiment class improved from 55.78 to 82.18 (26.4 points). Although the mean score of pre-test in control class has also increased from 53.06 to 67.74 (14.68 points), but it is smaller than that of experiment class ($14.88 < 26.4$). Simply it indicates that the use of Thinking Maps in teaching and learning reading comprehension on narrative text is effective.

In addition, the value of t_0 was 5.280 (Table 4.6) with the degree of freedom was 61 with 5% degree of significant. Based on $df = 61$ in significance 5%, it can be seen that the value of the t_t is 1.67022 (see appendix 2). By comparing the result of t_t and t_0 , in the degree of 5% significance, $t_t < t_0 = 1.67022 < 5.280$. So, it can be concluded that the Null Hypothesis (H_0) is rejected and the Alternative Hypothesis (H_a) is accepted. Moreover, it means that the use of Thinking Maps is effective to improve students' reading comprehension.

Based on the result of the research, finally the researcher could say that Thinking Maps can improve students' reading comprehension on narrative text in experiment class. Therefore, learning reading comprehension on narrative text by using Thinking Maps technique is better than that of without using Thing Maps technique.

