

## CHAPTER IV

### RESEARCH FINDING AND DISCUSSION

#### 4.1 Research Finding

The finding of this research described that there was different significance between experimental class which taught by using Paper Puppet and control class which taught without using Paper Puppet in writing Descriptive text. The researcher conducted on 02<sup>nd</sup> until 16<sup>th</sup> August in MTs. Mamba'ul Ulum Mambak Pakis Aji Academic year 2017/2018. The subject of this research was eight grader students. The writer took two classes as sample, they were VIII A as experimental class and VIII B as control class. The experimental class consisted of 30 students and the group of control group consisted of 30 students. To get the score of the students' writing ability in Descriptive text by using Paper Puppet and without using Paper Puppet, the writer gave pre-test, treatment and post test. After all the data had been collected, the writer conducted accounting the data. The result could be seen as follows:

##### a. **The Data Pre-test and Post-test of Students Who Taught Using Paper Puppet.**

The researcher did the pre-test to in the first meeting. The next meeting the researcher gave post-test after taught using paper puppet. In this activity, the students had to write descriptive text based on their paper puppet that they took. Then, they wrote a better paragraph based on generic structure and language features. The detail scores of pre-test and post-test showed that most of students had good result. The detail score of pre-test and post-test are shown in the following table (see the analysis on the appendix 3 and appendix 4).

Table 4.3  
Pre-test Post-test score of Experimental class

No	Code	Pre-test result	Grade	No	Code	Post-test result	Grade
1.	E-1	61	D	1.	E-1	88	B
2.	E-2	70	C	2.	E-2	89	B
3.	E-3	67	D	3.	E-3	87	B
4.	E-4	70	C	4.	E-4	91	A
5.	E-5	53	E	5.	E-5	79	C
6.	E-6	58	E	6.	E-6	77	C
7.	E-7	66	D	7.	E-7	80	B
8.	E-8	70	C	8.	E-8	83	B
9.	E-9	70	C	9.	E-9	85	B
10.	E-10	76	C	10.	E-10	93	A
11.	E-11	60	D	11.	E-11	76	C
12.	E-12	65	D	12.	E-12	78	C
13.	E-13	55	E	13.	E-13	73	C
14.	E-14	59	E	14.	E-14	68	D
15.	E-15	64	C	15.	E-15	88	B
16.	E-16	80	B	16.	E-16	94	A
17.	E-17	72	C	17.	E-17	87	B
18.	E-18	70	C	18.	E-18	81	B
19.	E-19	80	B	19.	E-19	90	A
20.	E-20	72	C	20.	E-20	87	B
21.	E-21	61	D	21.	E-21	75	C
22.	E-22	66	D	22.	E22	78	C
23.	E-23	60	D	23.	E-23	87	B
24.	E-24	78	C	24.	E-24	89	B
25.	E-25	71	C	25.	E-25	85	B
26.	E-26	70	C	26.	E-26	82	B
27.	E-27	70	C	27.	E27	89	B
28.	E-28	76	C	28.	E-28	90	A
29.	E-29	65	D	29.	E-29	76	C
30.	E-30	68	D	30.	E-30	80	B
<b>Σ</b>		<b>2023</b>		<b>Σ</b>		<b>2505</b>	

The score above, the mean pre-test and post-test of experimental class was got by using this formula:

- a. Pre-test of Experimental

$$\bar{X} = \frac{\sum X}{N}$$

$$= \frac{2023}{30}$$

$$= 67,42.$$

b. Post-test of Experimental

$$\bar{X} = \frac{\sum X}{N}$$

$$= \frac{2505}{30}$$

$$= 83,5.$$

From the computation above, the mean of pre-test 67.42 and the mean of post-test was 83.5. Then, it was consulted to the following level of achievement:

Table 4.4  
Level of achievement

Mark	Score	Level
A	90-100	Excellent
B	80-89	Very Good
C	70-79	Adequate
D	60-69	Inadequate
E	Below 60	Fail

(Brown, 2004:287)

From the table above, it can be seen that the mean of pre-test was 67,42. It means in the range of 60-69 which is categorized into inadequate. On the other hand, the mean of post-test was 83.13 which is in the range of 80-89. It can be categorized into very good level.

Table 4.5

The percentage of the students' pre-test and post-test score in experimental group.

Mark	Score	Level	Number of pre-test score	Percentage	Number of post-test score	Percentage
A	90-100	Excellent	0	0%	5	16,6%
B	80-89	Very Good	2	6.6%	16	53.3%

C	70-79	Adequate	14	46.6%	8	26,6%
D	60-69	Inadequate	10	33.3%	1	3,3%
E	Below 60	Fail	4	13,3%	0	0%

To obtain the percentage of the students' achievement, the calculation used the following formula proposed by Cohen (2000: 326).

$$P = \frac{A}{N} \times 100\%$$

where:

$P$  = the percentage of students' grade

$A$  = the number of students who got the certain score

$N$  = the total number of students

The calculations of the pre-test percentage of students' mark in experimental class were as follows:

- a. The percentage of excellent grade (A)

$$P = \frac{0}{30} \times 100\% = 0\%$$

- b. The percentage of very good grade (B)

$$P = \frac{2}{30} \times 100\% = 6.6\%$$

- c. The percentage of adequate grade (C)

$$P = \frac{14}{30} \times 100\% = 46.6\%$$

- d. The percentage of inadequate grade (D)

$$P = \frac{10}{30} \times 100\% = 33.3\%$$

- e. The percentage of fail grade (E)

$$P = \frac{4}{30} \times 100\% = 13.3\%$$

The calculations of the post-test percentage of students' mark in experimental class were as follows:

- a. The percentage of excellent grade (A)

$$P = \frac{5}{30} \times 100\% = 16.6\%$$

- b. The percentage of very good grade (B)

$$P = \frac{16}{30} \times 100\% = 53.3\%$$

- c. The percentage of adequate grade (C)

$$P = \frac{8}{30} \times 100\% = 26.6\%$$

- d. The percentage of inadequate grade (D)

$$P = \frac{1}{30} \times 100\% = 3.3\%$$

- e. The percentage of fail grade (E)

$$P = \frac{0}{30} \times 100\% = 0\%$$

From the table above, the pre-test percentage score of experimental showed that there were 0 students who got excellent grade (0%), 2 students who got very good grade (6.6%), 14 students who got adequate grade (46.6%), 10 students who got grade inadequate grade (33.3%), and 4 students who got fail grade (13.3%). It means that almost of students had standard of writing ability because most of students had adequate grade.

However, the post-test percentage of experimental students had mastered writing because most of students got very good grade. It was proved that there were 5 students who got excellent grade (16,6%), 16 students who got very good grade (53.3%), 8 students who got adequate grade (26.6%), 1 students who got inadequate grade (3,3%), and 0 student who got fail grade (0%).

**b. The Data Pre-test and Post-test of Students Who Taught Without Using Paper Puppet.**

The researcher also did the pre-test to in the first meeting. The next meeting the researcher gave post-test after taught using conventional method. In post-test activity, the students had to write descriptive text. After that they wrote a better paragraph based on generic structure and language features. The detail scores of pre-test and post-test showed that most of students had adequate result. The detail score of pre-test and post-test are shown in the following table (see the analysis on the appendix 5 and appendix 6).

Table 4.8

Pre-test and post-test score of control group

No	Code	Pre-test Score	Grade	No	Code	Post-test Score	Grade
1.	C-1	60	D	1.	C-1	65	D
2.	C-2	64	D	2.	C-2	69	D
3.	C-3	58	E	3.	C-3	62	D
4.	C-4	74	C	4.	C-4	78	C
5.	C-5	63	D	5.	C-5	80	B
6.	C-6	71	C	6.	C-6	80	B
7.	C-7	56	E	7.	C-7	60	D
8.	C-8	55	E	8.	C-8	66	D
9.	C-9	71	C	9.	C-9	75	C
10.	C-10	72	C	10.	C-10	70	C
11.	C-11	76	C	11.	C-11	78	C
12.	C-12	83	B	12.	C-12	81	B
13.	C-13	68	D	13.	C-13	72	C
14.	C-14	77	C	14.	C-14	80	B
15.	C-15	87	B	15.	C-15	90	A
16.	C-16	68	D	16.	C-16	65	D
17.	C-17	78	C	17.	C-17	78	C
18.	C-18	77	C	18.	C-18	78	C
19.	C-19	63	D	19.	C-19	67	D
20.	C-20	66	D	20.	C-20	72	C
21.	C-21	58	E	21.	C-21	68	D
22.	C-22	65	D	22.	C-22	80	B
23.	C-23	71	C	23.	C-23	78	C
24.	C-24	66	D	24.	C-24	77	C
25.	C-25	79	C	25.	C-25	83	B
26.	C-26	65	D	26.	C-26	60	D
27.	C-27	83	B	27.	C-27	87	B
28.	C-28	61	D	28.	C-28	67	D
29.	C-29	77	C	29.	C-29	73	C
30.	C-30	63	D	30.	C-30	71	C
<b>Σ</b>		<b>2075</b>		<b>Σ</b>		<b>2210</b>	

The score above, the mean pre-test and post-test of control class was got by using this formula:

- a. The mean pre-test of control group

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{2075}{30} \\ &= 69,16.\end{aligned}$$

- b. The mean of post-test of control group

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{2210}{30} \\ &= 73,66.\end{aligned}$$

From the computation above, the mean of pre-test 69.16 and the mean of post-test was 73.66. Then, it was consulted to the following level of achievement:

Table 4.9  
Level of achievement

Mark	Score	Level
A	90-100	Excellent
B	80-89	Very Good
C	70-79	Adequate
D	60-69	Inadequate
E	Below 60	Fail

(Brown, 2004:287)

From the table above, it can be seen that the mean of pre-test was 69,16. It means in the range of 60-69 which is categorized into inadequate. On the other hand, the mean of post-test was 73.66 which is in the range of 70-79. It can be categorized into adequate level.

Table 4.10

The percentage of the students' pre-test and post-test score in control group:

Mark	Score	Level	Number of pre-test score	Percentage	Number of post-test score	Percentage
A	90-100	Excellent	0	0%	1	3.3%
B	80-89	Very Good	3	10%	7	23.3%
C	70-79	Adequate	11	36,7%	12	40%
D	60-69	Inadequate	12	40%	10	33.3%
E	Below 60	Fail	4	13,3%	0	0%

To obtain the percentage of the students' achievement, the calculation used the following formula proposed by Cohen (2000:36):

$$P = \frac{A}{N} \times 100\%$$

where:

$P$  = the percentage of students' grade

$A$  = the number of students who got the certain score

$N$  = the total number of students

The calculations of the pre-test percentage of students' mark in control class were as follows:

- a. The percentage of excellent grade (A)

$$P = \frac{0}{30} \times 100\% = 0\%$$

- b. The percentage of very good grade (B)

$$P = \frac{3}{30} \times 100\% = 10\%$$

- c. The percentage of adequate grade (C)

$$P = \frac{11}{30} \times 100\% = 36.7\%$$

- d. The percentage of inadequate grade (D)

$$P = \frac{12}{30} \times 100\% = 40\%$$

- e. The percentage of fail grade (E)

$$P = \frac{4}{30} \times 100\% = 13.3\%$$

The calculations of the post-test percentage of students' mark in control class were as follows:

- a. The percentage of excellent grade (A)

$$P = \frac{1}{30} \times 100\% = 3.3\%$$

- b. The percentage of very good grade (B)

$$P = \frac{7}{30} \times 100\% = 23.3\%$$

- c. The percentage of adequate grade (C)

$$P = \frac{12}{30} \times 100\% = 40\%$$

- d. The percentage of inadequate grade (D)

$$P = \frac{10}{30} \times 100\% = 33.3\%$$



e. The percentage of fail grade (E)

$$P = \frac{0}{30} \times 100\% = 0\%$$

From the table above, the pre-test percentage score of control showed that there were 0 students who got excellent grade (0%), 3 students who got very good grade (10 %), 11 students got adequate grade (36.7 %), 12 students who got grade inadequate grade (40 %), and 4 students who got fail grade (13.3%). It means that almost of students had standard of writing ability because most of students had adequate grade.

However, the post-test percentage of experimental students had mastering writing because most of students got adequate grade. It was proved that there were only 1 student who got excellent grade (3.3 %), 7 students who got very good grade (23.3%), 12 students who got adequate grade (40%), 10 students who got inadequate grade (33.3 %), and 0 student who got fail grade (0%).

**c. The Difference of Achievement in Writing Descriptive Text Between Students Who are taught Using Paper Puppet and Those are taught without Using Paper Puppet**

In order to know whether any significant difference between the students who are taught using Paper Puppet and those who taught without using Paper Puppet, the writer used t-test. The first step is the writer gives the report concerning the data description of students' score in pre-test and post-test.

Table 4.11

The Students' score of Experimental Group

No	Pre-test Score	Post-test Score	Gained (d) Score (Post-test – Pre-test)
1.	61	88	27
2.	70	89	19
3.	67	87	20
4.	70	91	21
5.	53	79	26

6.	58	77	19
7.	66	80	14
8.	70	83	13
9.	70	85	15
10.	76	93	17
11.	60	76	16
12.	65	78	13
13.	55	73	18
14.	59	68	9
15.	64	88	24
16.	80	94	14
17.	72	87	15
18.	70	81	11
19.	80	90	10
20.	72	87	15
21.	61	75	14
22.	66	78	12
23.	60	87	27
24.	78	89	11
25.	71	85	14
26.	70	82	12
27.	70	89	19
28.	76	90	14
29.	65	76	11
30.	68	80	12
<b>Sum</b>	<b>2023</b>	<b>2505</b>	<b>482</b>
<b>Mean</b>	<b>67.42</b>	<b>83.5</b>	<b>16.06</b>

Table 4.12

The Students' Score of Control Group

No	Pre-test Score	Post-test Score	Gained (d) Score (Post-test – Pre-test)
1.	60	65	5
2.	64	69	5
3.	58	62	4
4.	74	78	4
5.	63	80	17
6.	71	80	9
7.	56	60	4
8.	55	66	11
9.	71	75	4
10.	72	70	-2
11.	76	78	2

12.	83	81	-2
13.	68	72	4
14.	77	80	3
15.	87	90	3
16.	68	65	-3
17.	78	78	0
18.	77	78	1
19.	63	67	3
20.	66	72	6
21.	58	68	10
22.	65	80	15
23.	71	78	7
24.	66	77	11
25.	79	83	4
26.	65	60	-5
27.	83	87	4
28.	61	67	6
29.	77	73	-4
30.	63	71	8
<b>Sum</b>	<b>2075</b>	<b>2210</b>	<b>134</b>
<b>Mean</b>	<b>69.16</b>	<b>73.66</b>	<b>4.46</b>

Then, the writer uses the comparative technique where the writer compares the experiment and control group in analyzing the data. To know whether any significant differences between two variables, the students who are taught using paper puppet and those who taught without paper puppet, the writer used t-test. The first step done by the writer was calculating the mean of each group. Then, the writer looked for the standard deviation of each group and standard error of the mean from each group. After that, the writer calculated the standard error of difference between the means. The table was also used to analyze t-test formula:

Table 4.13

The Comparison of Students' Score in Pre-test and Post-test of  
Experimental and Control Group

Students X	Students Y	X	Y	X	Y	x.x	y.y
1.	1.	27	5	10.94	0.54	119.7	0.291
2.	2.	19	5	2.94	0.54	8.64	0.291

3.	3.	20	4	3.94	-0.46	15.52	0.211
4.	4.	21	4	4.94	-0.46	24.40	0.211
5.	5.	26	17	9.94	12.54	98.80	157.25
6.	6.	19	9	2.94	4.54	8.64	20.61
7.	7.	14	4	-2.06	-0.46	4.24	0.211
8.	8.	13	11	-3.06	6.54	9.36	42.77
9.	9.	15	4	-1.06	-0.46	1.12	0.211
10.	10.	17	-2	0.94	-6.46	0.883	41.73
11.	11.	16	2	-0.06	-2.46	0.0036	6.05
12.	12.	13	-2	-3.06	-6.46	9.36	41.73
13.	13.	18	4	1.94	-0.46	3.76	0.211
14.	14.	9	3	-7.06	-1.46	49.84	2.13
15.	15.	24	3	7.94	-1.46	63.04	2.13
16.	16.	14	-3	-2.06	-7.46	4.24	55.65
17.	17.	15	0	-1.06	-4.46	1.12	19.89
18.	18.	11	1	-5.06	-3.46	25.60	11.97
19.	19.	10	3	-6.06	-1.46	36.72	2.13
20.	20.	15	6	-1.06	1.54	1.12	2.37
21.	21.	14	10	-2.06	5.54	4.24	30.69
22.	22.	12	15	-4.06	10.54	16.48	111.09
23.	23.	27	7	10.94	2.54	119.68	6.45
24.	24.	11	11	-5.06	6.54	25.60	42.77
25.	25.	14	4	-2.06	-0.46	4.24	0.211
26.	26.	12	-5	-4.06	-9.46	16.48	89.49
27.	27.	19	4	2.94	-0.46	8.64	0.211
28.	28.	14	6	-2.06	1.54	4.24	2.37
29.	29.	11	-4	-5.06	-8.46	25.60	71.57
30.	30.	12	8	-4.06	3.54	16.48	12.53
<b>Mean</b>		<b>482</b>	<b>134</b>				
<b>N1=30</b>	<b>N2=30</b>	<b>16.06</b>	<b>4.46</b>			<b>727.84</b>	<b>775.429</b>

Based on the table above, it was known the difference result between pre-test and post-test of each group. After that, the writer calculated the result of t-test. The following below were the steps to calculate the t-test:

a. Finding the Mean each Variable X and Y :

1. Determine Mean of variable X, with formula:

$$\begin{aligned}
 M_1 &= \frac{\sum X}{N_1} \\
 &= \frac{482}{30} \\
 &= 16.06
 \end{aligned}$$

2. Determining Mean of variable Y, with formula:

$$\begin{aligned} M_2 &= \frac{\Sigma Y}{N_2} \\ &= \frac{134}{30} \\ &= 4.46 \end{aligned}$$

b. Determining Standars of Deviation

1. Score of Variable X, with formula:

$$\begin{aligned} SD_1 &= \sqrt{\frac{\Sigma X^2}{N_1}} \\ &= \sqrt{\frac{727.84}{30}} \\ &= \sqrt{24.26} \\ &= 4.93 \end{aligned}$$

2. Score of Variable Y, with formula:

$$\begin{aligned} SD_2 &= \sqrt{\frac{\Sigma Y^2}{N_2}} \\ &= \sqrt{\frac{775.492}{30}} \\ &= \sqrt{25.85} \\ &= 5.08 \end{aligned}$$

c. Determining Standard Error

1. Mean of Variable X, with formula:

$$\begin{aligned} SE_{M1} &= \frac{SD1}{N_1-1} \\ &= \frac{4.93}{\sqrt{29}} \\ &= \frac{49.3}{5.38} \\ &= 0.92 \end{aligned}$$

2. Mean of Variable Y, with formula:

$$\begin{aligned} SE_{M2} &= \frac{SD2}{N_2-1} \\ &= \frac{5.08}{\sqrt{29}} \\ &= \frac{5.08}{5.38} \\ &= 0.94 \end{aligned}$$

- d. Determining Standard Error of different Mean of Variable X and Mean of Variable Y, with formula:

$$\begin{aligned}
 SE_{M1-M2} &= \sqrt{SEm_{1^2} + SEm_{2^2}} \\
 &= \sqrt{0.92^2 + 0.94^2} \\
 &= \sqrt{0.846 + 0.883} \\
 &= \sqrt{1.729} \\
 &= 1.314
 \end{aligned}$$

- e. Determining  $t_o$  with formula:

$$\begin{aligned}
 t_o &= \frac{M1-M2}{SE_{M1-M2}} \\
 &= \frac{16.08-4.5}{1.314} \\
 &= \frac{11.58}{1.314} \\
 &= 8.812
 \end{aligned}$$

The result of t-test is 8.812. After that the researcher should find the degree of freedom. It is used to find the value of t-test in the t-table. To get the value of the test from the t-table, the researcher used the value of the significant 5%. The formula to get the degree of freedom is:

$$\begin{aligned}
 df &= (Nx + Ny)-2 \\
 &= (30+30)-2 \\
 &= 58.
 \end{aligned}$$

The degree of freedom ( $df$ ) is 58. Thus, the computation of critical value at t-table in the level of significance 5% is 1.671. The result was t-test > t-table ( $8.812 > 1.671$ ). It means that, there is the significant difference of writing ability between the students taught using Paper Puppet and those taught without using Paper Puppet. Therefore,  $H_a$  can be proved or accepted.

## 4.2 Discussion

In conducting this research, the writer took two classes as a control group and experimental group. Class VIII A was experimental group, it consists of 30 students. While, Class VIII B was control group, it also consists of 30 students. The writer gave treatments in experimental group by

using Paper Puppet. Meanwhile, in control group the students taught without using Paper Puppet.

**a. Writing Achievement of the Students Who Are Taught Using Paper Puppet**

The writing skill of the students in writing descriptive text who are taught by using Paper Pappet was very good. The witer used Paper Puppet to improve the students' writing skill in writing descriptive text. They were exciting in teaching learning process. By using the paper puppet, the scores of the students got the increasing. It could be seen from the result of the pre-test mean score in the experimental group was 67.42, and the post test mean score was 83.5.

When students taught by using Paper puppet, their writing skill had well increasing. It proved by the result of post-test. It means that writing through Paper pappet could help students to got of ideas. The students were also interested and more active in teaching and learning process. It helped them before they write a text. The students enjoy when the writer showed theme paper pappets. It could be a stimulus for the students to share their experience with their friends. Thus, it can help the students to write descriptive text easily. The learning process also will become more effectively.

**b. Writing Achievement of the Students Who Are Taught Without Using Paper Puppet**

To collect the data, the writer gave pre-test and post-test to the students. In pre-test and post-test, they had to write descriptive text about the certain topics that was provided. Then, the students had to write complete sentences at the test. However, when they were taught without using paper puppet, the students' ability in writing descriptive text was inadequate grade. The students confused about what they want to write and how arrange the right stucture sentences. The students also found the difficulty to share ideas in their brain into a written text. The students were

also more bored in teaching learning process because they did not feel interested.

According to the fact, the scores of the students who are taught without using Paper Puppet media was poor. It can be seen from the result of the pre-test and post-test mean score in the control group. In the control group, the pre-test score was 69,16 and in the post test, the score was 73.66. It is on the range of 75-79 which is categorized into adequate.

From the result of pre-test and post-test in control group, the students' writing ability in descriptive text had increased. It was caused that the students had no preparation for doing the pre-test. They also did not had encouragement to write and they felt afraid when they made mistakes in creating a text. As Harmer (61:2004) mentions that the "unwillingness of students in writing may derive from anxieties they have about their handwriting, their spelling, or their ability to construct sentences and paragraphs. It means that, by writing students could express their ideas and opinions on written language so that people can read it. However, the students still face the difficulties when they try to produce great ideas and produce it into readable text. This problem made the students' writing ability was poor and their scores were low category.

**c. The Difference of Achievement in Writing Descriptive Text Between Students Who are taught Using Paper Puppet and Those are taught without Using Paper Puppet**

The writing ability of the students taught without using Paper Puppet was difference from the writing ability of the students taught using Paper Puppet. It can be seen from the mean of both groups. The mean score of the experimental group was higher than the mean score of the control group. The mean score of pre-test in experimental group was 67.42, which was categorized in inadequate grade. Then, the mean score of pre-test in control group was 69.16. The pre-test mean score of experimental group was lower than control group. Then, the writer also found the mean score of post-test in experimental group. It was 83.5 which was in very good category. It was



different from the result of post-test in control group. It was 73.6, which was in adequate category. The upgrading of experimental group was higher than control group.

The writing ability of the students taught without using Paper Puppet was difference from the writing ability of the students taught using Paper Puppet. It can be known by using t-test computation. The result of t-test was 8.812. Thus, the computation of critical value at t-table in the level of significance 5% is 1.671. The result was t-test > t-table ( $8.812 > 1.671$ ). It showed that the result of the t-test is higher than the t-table ( $8.812 > 1.671$ ). It means that there was a significant difference between the students' writing ability who are taught by using Paper Puppet and those who are taught without using Paper Puppet. Thus, hypothesis ( $H_a$ ) is accepted, because there is significant difference of writing ability between the students taught using Paper Puppet and those taught without using Paper Puppet.