

## CHAPTER IV

### RESEARCH FINDING AND DISCUSSION

This chapter presents the research finding and the discussion of result. The research finding is based on the data obtained from SMA Islam Jepara and the discussion is based on the research finding. This chapter also discovers the verification of the hypothesis that proposed.

#### 4.1 Research Finding

This research found the different result between experimental class who taught by using RAFT technique and control class who taught by using direct method. The data description included the score of experimental class and the score of control class. The data was explained as follow.

##### 4.1.1 The Score of Experimental Class

Table 4.1

The Students Score Pre Test of Experimental Class

No	Code	Aspects of Scoring					Pre-test Experimental Class
		C	O	G	V	M	
1	EC-1	20	20	15	20	5	75
2	EC-2	25	10	15	20	5	75
3	EC-3	20	15	15	15	5	70
4	EC-4	25	10	15	15	5	70
5	EC-5	25	15	10	15	5	70

6	EC-6	20	15	10	10	5	60
7	EC-7	20	20	10	20	5	75
8	EC-8	20	15	10	10	5	60
9	EC-9	20	10	20	20	5	75
10	EC-10	20	20	10	15	5	70
11	EC-11	20	15	10	20	5	60
12	EC-12	25	15	20	10	5	75
13	EC-13	20	10	15	15	5	65
14	EC-14	20	15	15	5	5	60
15	EC-15	28	20	18	10	4	80
16	EC-16	25	20	15	15	5	80
17	EC-17	25	20	20	10	5	80
18	EC-18	20	15	15	5	5	60
19	EC-19	20	15	15	15	5	70
20	EC-20	25	15	20	10	5	75
21	EC-21	20	20	10	15	5	70
22	EC-22	25	20	10	15	5	70
23	EC-23	20	10	20	10	5	65
24	EC-24	25	15	15	10	5	70
25	EC-25	30	20	15	10	5	80
26	EC-26	20	15	15	5	5	60
	<b>Total</b>						<b>1820</b>
	<b>Avarage</b>						<b>70</b>

**Table 4.2****The Students Score Post Test of Experimental Class**

No	Code	Aspects of Scoring					Post-test Experimental Class
		C	O	G	V	M	
1	EC-1	30	22	18	15	5	80
2	EC-2	28	20	15	10	5	78
3	EC-3	30	20	15	10	5	85
4	EC-4	25	20	20	15	5	85
5	EC-5	30	22	18	15	5	80
6	EC-6	25	15	15	10	5	70
7	EC-7	23	22	18	10	5	78
8	EC-8	25	20	15	10	5	75
9	EC-9	30	20	15	10	5	85
10	EC-10	30	18	22	15	5	80
11	EC-11	28	20	15	10	5	78
12	EC-12	28	22	15	10	5	80
13	EC-13	25	15	15	10	5	70
14	EC-14	20	15	15	10	5	65
15	EC-15	25	20	20	15	5	85
16	EC-16	25	20	20	15	5	85
17	EC-17	30	20	15	15	5	85
18	EC-18	20	20	10	15	5	70
19	EC-19	23	22	18	10	5	78



1	CC-1	18	10	15	15	5	68
2	CC-2	15	20	10	10	5	60
3	CC-3	20	15	10	10	5	60
4	CC-4	20	10	15	20	5	75
5	CC-5	20	15	15	15	5	70
6	CC-6	20	20	15	10	5	65
7	CC-7	20	15	20	10	5	65
8	CC-8	24	16	20	15	5	70
9	CC-9	17	13	15	10	5	60
10	CC-10	17	13	15	10	5	60
11	CC-11	20	10	20	20	5	75
12	CC-12	20	15	15	15	5	70
13	CC-13	17	13	20	10	5	65
14	CC-14	25	15	15	10	5	65
15	CC-15	17	13	20	10	5	65
16	CC-16	22	18	18	5	5	60
17	CC-17	17	13	20	10	5	65
18	CC-18	17	13	20	10	5	70
19	CC-19	24	16	20	15	5	70
20	CC-20	22	18	18	5	5	60
21	CC-21	20	18	18	15	4	75
22	CC-22	22	18	18	5	5	60
23	CC-23	17	13	20	10	5	65
24	CC-24	17	13	20	10	5	70

25	CC-25	26	14	15	10	3	68
26	CC-26	24	16	20	15	5	70
	<b>Total</b>						<b>1726</b>
	<b>Avarage</b>						<b>66</b>

**Table 4.4**

**The Students Score Post Test of Control Class**

No	Code	Aspects of Scoring					Post-test Control Class
		C	O	G	V	M	
1	CC-1	25	10	15	20	5	75
2	CC-2	22	13	15	10	5	65
3	CC-3	23	17	15	10	3	68
4	CC-4	27	14	20	15	4	80
5	CC-5	30	20	15	10	5	80
6	CC-6	25	10	18	20	5	75
7	CC-7	25	15	10	20	5	75
8	CC-8	23	15	15	20	5	75
9	CC-9	20	15	15	20	5	75
10	CC-10	23	17	15	10	3	68
11	CC-11	28	18	20	10	4	80
12	CC-12	20	18	15	20	5	78
13	CC-13	20	15	18	20	5	78
14	CC-14	25	10	15	20	5	75
15	CC-15	20	10	13	22	5	70

16	CC-16	23	17	15	10	3	68
17	CC-17	26	14	15	15	5	75
18	CC-18	28	18	20	10	4	80
19	CC-19	28	18	15	10	4	75
20	CC-20	20	10	13	22	5	70
21	CC-21	30	20	15	10	5	80
22	CC-22	20	20	15	10	5	70
23	CC-23	25	10	15	20	5	75
24	CC-24	25	10	15	20	5	75
25	CC-25	22	10	15	20	5	73
26	CC-26	20	15	18	20	5	78
	<b>Total</b>						<b>1973</b>
	<b>Avarage</b>						<b>75</b>

Based on the result of the pre-test and post-test from the control class, it showed that the lowest score of the pre-test is 60 and the highest score is 75. While the lowest score of the post-test is 65 and the highest score is 80. Therefore, it can be concluded that the avarage of the post-test was higher than the avarage of the pre-test score.

#### 4.2 Data Analysis

The researcher analyzed the data using t-test in testing the hypothesis proposed. Before doing the t-test, the writer did the prerequisite test that included

normality test and homogeneity test. Then, the writer tested the hypothesis using t-test.

#### 4.2.1 Normality Test

Normality test is aimed to reveal that the data has the normal distribution. In doing the normality test, the writer used Shapiro Wilk method. The data has normal distribution if the result of observation is higher than the significant level 0.005. The result of normality test as follow:

#### Tests of Normality

Class	Shapiro-Wilk					
	Statistic	df	Sig.	Statistic	Df	Sig.
Score pre-test experimental	,192	26	,014	,885	26	,008
post-test experimental	,194	26	,013	,902	26	,018
pre-test control	,170	26	,052	,888	26	,008
post-test control	,198	26	,010	,903	26	,018

a. Lilliefors Significance Correction

The result of normality test above showed that the significance of the pre-test experimental class were 0,008 and the post-test experimental class were 0,018. The result of of normality test of the pre-test control class were 0,008 and the post-test control class were 0,018. It means that the significance of both experimental and control class was higher (>) than

the degree of significance 0.005. Therefore, it could be concluded that the data of both experimental and the control class were normally distributed.

#### 4.2.2 Homogeneity Test

Homogeneity test is aimed to reveal that the samples have homogenous variance. The data was homogenous if the result of observation is higher than the significant level 0.005. The result of homogeneity test as follows:

<b>Test of Homogeneity of Variance</b>				
	Levene Statistic	df1	df2	Sig.
Based on Mean	1,601	1	50	,212
Based on Median	1,406	1	50	,241
Based on Median and with adjusted df	1,406	1	43,459	,242
Based on trimmed mean	1,664	1	50	,203

Based on the table above, the data shows significant value as 0,212 or it describes as  $0,212 > 0.005$ . It means that the both data of experimental class (EC) and the control class (CC) have homogenous variance.

#### 4.2.3 Testing the Hypothesis

In this part, the researcher calculated the data to test the hypothesis that whether there is significant difference between the students writing of descriptive text using RAFT technique in experimental class and the students writing descriptive text without RAFT technique in control

class. the reseacher used t-test formula with the significance degree 5% in analyzing the data.

**Table 4.5**

**Table of Pretest Score of Experimental Class and Control Class**

No	Eksperimental class ( $x^1$ )	$(x_1 - \bar{x}_1)$	$(x_1 - \bar{x}_1)^2$	Control class	$(x_1 - \bar{x}_1)$	$(x_1 - \bar{x}_1)^2$
1	75	5	25	68	2	4
2	75	5	25	60	-6	36
3	70	0	0	60	-6	36
4	70	0	0	75	9	81
5	70	0	0	70	4	16
6	60	-10	100	65	1	1
7	75	5	25	65	-1	1
8	60	-10	100	70	4	16
9	75	5	25	60	-6	16
10	70	0	0	60	-6	16
11	60	-10	100	75	9	81
12	75	5	25	70	4	16
13	65	-5	25	65	-1	1
14	60	-10	100	65	-1	1
15	80	10	100	65	-1	1
16	80	10	100	60	-6	36
17	80	10	100	65	-1	1
18	60	-10	100	70	4	16

19	70	0	0	70	4	16
20	75	5	25	60	-6	36
21	70	0	0	75	9	81
22	70	0	0	60	-6	36
23	65	-5	25	65	-1	1
24	70	0	0	70	4	16
25	80	10	100	68	2	4
26	60	-10	100	70	4	16
<b>Total</b>	<b>1820</b>		<b>1200</b>	<b>1726</b>		<b>582</b>
<b>Mean</b>	<b>70</b>		<b>46,15</b>	<b>66</b>		<b>22,38</b>

Table 4.6

Table of Posttest Score of Experimental Class and Control Class

No	Eksperimental class ( $x^1$ )	$(x_1 - \bar{x}_1)$	$(x_1 - \bar{x}_1)^2$	Control class	$(x_1 - \bar{x}_1)$	$(x_1 - \bar{x}_1)^2$
1	80	2	4	75	0	0
2	78	0	0	65	-10	100
3	85	7	49	68	-7	49
4	85	7	49	80	5	25
5	80	2	4	80	5	25
6	70	-8	64	75	0	0
7	78	0	0	75	0	0

8	75	-3	9	75	0	0
9	85	7	49	75	0	0
10	80	2	4	68	-7	49
11	78	0	0	80	5	25
12	80	2	4	78	3	9
13	70	-8	64	78	3	9
14	65	-13	169	75	0	0
15	85	7	49	70	-5	25
16	85	7	49	68	-7	49
17	85	7	49	75	0	0
18	70	-8	64	80	5	25
19	78	0	0	75	0	0
20	85	7	49	70	-5	25
21	80	2	4	80	5	25
22	80	2	4	70	-5	25
23	70	-8	64	75	0	0
24	78	0	0	75	0	0
25	88	10	100	73	-2	4
26	70	-8	64	78	3	9
<b>Total</b>	<b>2043</b>		<b>965</b>	<b>1973</b>		<b>478</b>
<b>Mean</b>	<b>78</b>		<b>37,11</b>	<b>75</b>		<b>18,3</b>

The researcher used t-test formula for testing hypothesis. It shows the difference result between classes in pre-test and post-test. The calculation steps of the test as follow:

## 1. Mean of Each Group

### A. Eksperimental Class of Pretest

$$\begin{aligned}\bar{x} &= \frac{\sum x}{nx} \\ &= \frac{1820}{26} \\ &= 70\end{aligned}$$

### B. Eksperimental Class of Posttest

$$\begin{aligned}\bar{x} &= \frac{\sum x}{nx} \\ &= \frac{2043}{26} \\ &= 78\end{aligned}$$

### C. Control Class of Pretest

$$\begin{aligned}\bar{x} &= \frac{\sum x}{nx} \\ &= \frac{1726}{26} \\ &= 66\end{aligned}$$

### D. Control class of Posttest

$$\bar{x} = \frac{\sum x}{nx}$$

$$= \frac{1973}{26}$$

$$= 75$$

## 2. Determining Standard Deviation for Each Group

### A. Pre-Test of Experimental Class

$$\begin{aligned}
 SD &= \sqrt{\frac{\sum(x_1 - \bar{x}_1)^2}{n_1}} \\
 &= \sqrt{\frac{46,15}{26}} \\
 &= \sqrt{1,775} \\
 &= 1,33
 \end{aligned}$$

### B. Pretest of Control Class.

$$\begin{aligned}
 SD &= \sqrt{\frac{\sum(x_1 - \bar{x}_1)^2}{n_1}} \\
 &= \sqrt{\frac{22,38}{26}} \\
 &= \sqrt{0,86} \\
 &= 0,92
 \end{aligned}$$

### C. Posttest of Experimental Class

$$SD = \sqrt{\frac{\sum(x_1 - \bar{x}_1)^2}{n_1}}$$

$$= \sqrt{\frac{37,11}{26}}$$

$$= \sqrt{1,42}$$

$$= 1,19$$

#### D. Posttest of Control Class

$$SD = \sqrt{\frac{\sum(x_1 - \bar{x}_1)^2}{n_1}}$$

$$= \sqrt{\frac{18,3}{26}}$$

$$= \sqrt{0,70}$$

$$= 0,83$$

Based on the table of the data above, it can be concluded that the mean score of pre-test in experimental class was 70 and the mean score of pre-test in control class was 66. While, the mean score of post-test in experimental class was 78 and the mean score of post-test in control class was 75. It can be concluded that the result of pre-test and post-test in experimental class was higher than the control class.

After the researcher calculated the result of the data above, the mean score and standard deviation of pre-test and post-test in both of experimental and control class could be seen in the following table:

**Table 4.7 The Mean Score and Standard Deviation of Pre-Test and Post-Test in Experimental and Control Class**

Class	Mean Score of Pre-Test	Mean Score of Post-Test	Standard Deviation of Pre-Test	Standard Deviation of Post-Test
Experimental	70	78	1,33	1,19
Control	66	75	0,92	0,83

### 3. Calculating The T-Test

#### A. Pre-test

$$\begin{aligned}
 S &= \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}} \\
 &= \sqrt{\frac{(26 - 1)(1,33)^2 + (26 - 1)(0,92)^2}{26 + 26 - 2}} \\
 &= \sqrt{\frac{25 \times 1,7689 + 25 \times 0,8464}{50}} \\
 &= \sqrt{\frac{44,2225 + 21,16}{50}} \\
 &= \sqrt{\frac{65,3825}{50}} \\
 &= \sqrt{1,3076} \\
 &= 1,4350
 \end{aligned}$$

While,

$$\begin{aligned}
 t_o &= \frac{\bar{x}_1 - \bar{x}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \\
 &= \frac{70 - 66}{1,4350 \sqrt{\frac{1}{26} + \frac{1}{26}}} \\
 &= \frac{4}{1,4350 \sqrt{\frac{2}{26}}} \\
 &= \frac{4}{1,4350 \sqrt{0,0769}} \\
 &= \frac{4}{1,4350 \times 0,2773} \\
 &= \frac{4}{0,3979} \\
 &= 10.052
 \end{aligned}$$

#### B. Post-test

$$\begin{aligned}
 S &= \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}} \\
 &= \sqrt{\frac{(26 - 1)(1,19)^2 + (26 - 1)(0,83)^2}{26 + 26 - 2}}
 \end{aligned}$$

$$= \sqrt{\frac{25 \times 1,4161 + 25 \times 0,6889}{50}}$$

$$= \sqrt{\frac{35,4025 + 17,2225}{50}}$$

$$= \sqrt{\frac{52,625}{50}}$$

$$= \sqrt{1,0525}$$

$$= 1,0259$$

While,

$$t_o = \frac{\bar{x}_1 - \bar{x}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$= \frac{78 - 75}{1,0259 \sqrt{\frac{1}{26} + \frac{1}{26}}}$$

$$= \frac{3}{1,0259 \sqrt{\frac{2}{26}}}$$

$$= \frac{3}{1,0259 \sqrt{0,0769}}$$

$$= \frac{3}{1,0259 \times 0,2773}$$

$$= \frac{3}{0,2844}$$

$$= 10,548$$

Based on the calculation of pre-test in experimental and control class, the result of t-test pf pre-test in experimental and control class was 10,052. The degree of freedom (df) was 50. The significant level was 0,05 and the value of  $t_{table}$  was 2,000. It can be concluded that  $t_0 > t_{table}$  ( $10,052 > 2,000$ ). It meant that there was significant differences between the result of pre-test in experimental and control class.

While for the result of pot-test in experimental and control class, based on the calculation above, the result of te-test of post-test in experimental and control class was 10,548. The degree of freedom (df) was 50. The significant level was 0,05 and the value of  $t_{table}$  was 2,000. It meant  $t_0 > t_{table}$  ( $10,548 > 2,000$ ). It can be concluded that RAFT technique can improve students writing skill.

After analysing the result of pre-test and post-test in both experimental and control class by using manually, the researcher applied SPSS 25 to know the result of t-test in experimental and control class. The result of analysing the t-test by using SPSS, can be seen as follow:

**Table 4.8 The Result of Pre-Test by Using SPSS**

Group Statistics					
Class		N	Mean	Std. Deviation	Std. Error Mean
Pretest	Eksperimental Class	26	70,0000	6,92820	1,35873

	Control Class	26	66,3846	4,97254	,97520
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Independent Samples Test										
		Levene's Test for Equality of Variances				t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Pretest	Equal variances assumed	1,539	,221	-2,162	50	,035	-3,61538	1,67247	-6,97464	-,25613
	Equal variances not assumed			-2,162	45,355	,036	-3,61538	1,67247	-6,98319	-,24758

Based on the t-test table of pre-test in experimental and control class by using SPSS above, the researcher described that there were two tables, Group Statistic and Independent Sample Test. The table of Group Statistic presented the result of pretest in experimental and control class statistically. The table showed the average of experimental and control class that were different. The mean score of experimental group was 70,00 while the mean score of control group was 66,00. It can be concluded that the experimental class was higher than the control class. It meant that the experimental and control class had different skill in writing descriptive text.

The second table was Independent Sample Test. It showed that the significant difference was 0,35. It meant that there was no significant differences the pre-test score of experimental and control group because the significant level was  $10,35 > 0,05$ . In independent sample test table also described about the value of the research. The result of t-value of pretest in this research was 10,025. Then, the t-value was compared to the t-table to know is there any improvement of the students taught by using RAFT technique. The t-table was taken of t-table requirement of t-table to analyse the data. The t-table of 0,05 as the significant level was 2,000 and the degree freedom (df) was 50. Based on the result of t-value of pre-test, it meant that t-value  $>$  t-table ( $10,025 > 2,000$ ), the  $H_0$  (The Null Hypothesis) was accepted and  $H_a$  (The Alternative Hypothesis) was rejected.. It can be concluded that there was significant differences of pretest in students' writing skill in descriptive text of the tenth grade students' of SMA Islam Jepara .

**Table 4.9 The Result of Post-Test by Using SPSS**

Group Statistics					
Class	N	Mean	Std. Deviation	Std. Error Mean	
posttest	Eksperimental Class	26	78,5769	6,18497	1,21297
	Control class	26	74,4615	4,33803	,85076

Independent Samples Test	
Levene's Test for Equality of Variances	t-test for Equality of Means

		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Posttest	Equal variances assumed	2,715	,106	2,778	50	,008	4,11538	1,48158	1,13954	7,09123
	Equal variances not assumed			2,778	44,804	,008	4,11538	1,48158	1,13096	7,09981

Based on the t-test table of post-test in experimental and control class by using SPSS above, the researcher described that there were two tables, Group Statistic and Independent Sample Test. The table of Group Statistic presented the result of pretest in experimental and control class statistically. The table showed the average of experimental and control class that were different. The mean score of experimental group was 78,00 while the mean score of control group was 75,00. It can be concluded that the experimental class was higher than the control class. It meant that the experimental and control class had different skill in writing descriptive text.

The second table was Independent Sample Test. It showed that the significant difference was 0,08. It meant that there was no significant differences the pre-test score of experimental and control group because the significant level was  $0,08 > 0,05$ . In independent sample test table also described about the value of the research. The result of t-value of pretest in this research was 10,548. Then, the t-value was compared to the t-table to know is there any improvement of the

students taught by using RAFT technique. The t-table was taken of t-table requirement of t-table to analyse the data. The t-table of 0,05 as the significant level was 2,000 and the degree freedom (df) was 50. Based on the result of t-value of pre-test, it meant that t-value > t-table ( $10,548 > 2,000$ ), the  $H_0$  (The Null Hypothesis) was accepted and  $H_a$  (The Alternative Hypothesis) was rejected.. It can be concluded that there was significant differences of post-test in students of experimental and control class in improving students' writing skill in descriptive text of the tenth grade students' of SMA Islam Jepara .

#### **4.3 Discussion**

This study is aimed to know the effect of implementing RAFT technique in teaching writing of tenth grade at SMA Islam Jepara. To find out the significant difference between students who taught by RAFT technique and who did not taught by this technique. This study was conducted on March 2020.

There were two groups in this research. They were called by experimental class and control class. The experimental class was in X IPA and the control class was in X IPS . The researcher conducted this research in four meetings for each class. The reseracher gave pre-test in first meeting. Pre-test was done to know the students' basic writing skill in writing descriptive text. Then, the treatment was given twice for each class. experimental class was taught by RAFT technique while the control class used direct method. At the last meeting, the researcher gave post-test that is aimed to know the significances of students' writing score after giving the treatment.

The implementation of RAFT technique in SMA Islam Jepara showed the result of pre-test in experimental and control class. The pre-test score showed that the mean of experimental class was higher than control class  $70 > 66$ , the result t-test of pre-test in experimental and control class was 10,052. The degree of freedom (df) was 50. The significant level was 0,05 and the value of  $t_{table}$  was 2,000. It can be concluded that  $t_0 > t_{table}$  ( $10,052 > 2,000$ ). It meant that there was significant differences between the result of pre-test in experimental and control class. the post-test score showed that the mean of experimental class was higher than control class  $78 > 75$ . According to the calculation t-test result, While for the result of pot-test in experimental and control class, based on the calculation above, the result of te-test of post-test in experimental and control class was 10,548. The degree of freedom (df) was 50. The significant level was 0,05 and the value of  $t_{table}$  was 2,000. It meant  $t_0 > t_{table}$  ( $10,548 > 2,000$ ). It can be concluded that RAFT technique can improve students writing skill.

. In this research, it meant that the null hypothesis ( $H_0$ ) was rejected and the alternative hypothesis ( $H_a$ ) was accepted. The writer could conclude that RAFT technique given for experimental class improved students' writing score. Teaching writing using RAFT technique provided students to more active in learning process. It made students more responsible in writing descriptive text Thus, they could know their lack then they could correct it at the time.