

CHAPTER IV

RESULT AND DISCUSSION

This chapter discuss about the results of the research which have been conducted by the researcher in SMA Wachid Hasyim 1 Surabaya in order to answer the research question that has been mentioned before. Here it will be divided into subheadings. They are result, data analysis, and discussion.

4.1. Result

This research had been done since 13th April 2016 to 17th May 2016. After considering that the test which was done in tryout is valid and reliable, the researcher conducted a pretest to both control and experimental group to obtain that both of them have an equal ability in writing skill. The first step which was done by the researcher is conducting pretest to both of control and experimental group. After conducting the pretest, the researcher scored the pretest of control and experimental group by using Osima's & Hogue's idea (2006) about scoring rubric of paragraphs (*see appendix 3*). Then, the researcher calculated all the data by using Microsoft Excel and SPSS 17. All of them would be explained in the tables below.

4.1.1 Reliability of Pretest

In this research, the researcher used inter-rater reliability. It means that the scoring of pretest in experimental and control group were scored by two raters (*see appendix 13 and 14*). The first rater was the English teacher of SMA Wachid Hasyim 1 Surabaya and the second rater was the researcher itself. Then, the result of pretest were analyzed by using Correlation Pearson Product Moment. Then, the data would be calculated by using SPSS 17.0 to know the scoring of pretest in experimental and control group between two raters are reliable or not.

Table 4.1 Reliability of Pretest in Experimental Group

Correlations

		Rater_1	Rater_2
Rater_1	Pearson Correlation	1	.902**
	Sig. (2-tailed)		.000
	N	30	30
Rater_2	Pearson Correlation	.902**	1
	Sig. (2-tailed)	.000	
	N	30	30

** . Correlation is significant at the 0.01 level (2-tailed).

Based on the table above, the inter-rater reliability showed that the instrument of pretest in experimental group is reliable. It can be seen from the result of *Pearson Product Moment* analysis that ($r = 0.902$, $p > 0.01$). The p-value for both rater 1 and rater 2 are 0.902**. It proved that the level of correlation of the data is very strong. So, the result of reliability test of pretest in experimental group is reliable.

Table 4.2 Reliability of Pretest in Control Group

Correlations

		Rater_1	Rater_2
Rater_1	Pearson Correlation	1	.914**
	Sig. (2-tailed)		.000
	N	30	30
Rater_2	Pearson Correlation	.914**	1
	Sig. (2-tailed)	.000	
	N	30	30

** . Correlation is significant at the 0.01 level (2-tailed).

In the table above, the inter-rater reliability showed that the instrument of pretest in control group is reliable. It can be seen from the result of *Pearson Product Moment* analysis that ($r = 0.914$, $p > 0.01$). The p-value for both rater 1 and rater 2 are 0.914^{**} . It proved that the level of correlation of the data is very strong. So, the result of reliability test pretest in control group is reliable.

4.1.2 Reliability of Posttest

The researcher also used inter-rater reliability to calculate the posttest score. It means that the scoring of posttest in experimental and control group were also scored by two raters (*see appendix 16 and 17*). Same with pretest scoring, the first rater in posttest was also the English teacher of SMA Wachid Hasyim 1 Surabaya and the second rater was the researcher itself. Then, the result of posttest were analyzed by using Correlation Pearson Product Moment. Then, the data would be calculated by using SPSS 17.0 to know the scoring of posttest in experimental and control group between two raters are reliable or not.

Table 4.3 Reliability of Posttest in Experimental Group

		Correlations	
		Rater_1	Rater_2
Rater_1	Pearson Correlation	1	.848**
	Sig. (2-tailed)		.000
	N	30	30
Rater_2	Pearson Correlation	.848**	1
	Sig. (2-tailed)	.000	
	N	30	30

** . Correlation is significant at the 0.01 level (2-tailed).

In the table above, the inter-rater reliability showed that the instrument of posttest in Experimental group is reliable. It can be seen from the result of *Pearson Product Moment* analysis that ($r = 0.848$, $p > 0.01$). The p-value for both rater 1 and

rater 2 are 0.848**. It proved that the level of correlation of the data is very strong. So, the result of reliability test of posttest in experimental group is reliable.

Table 4.4 Reliability of Posttest in Control Group

		Rater_1	Rater_2
Rater_1	Pearson Correlation	1	.436*
	Sig. (2-tailed)		.016
	N	30	30
Rater_2	Pearson Correlation	.436*	1
	Sig. (2-tailed)	.016	
	N	30	30

*. Correlation is significant at the 0.05 level (2-tailed).

Based on table above shows that the instrument of posttest in control group is reliable. It can be seen from the result of *Pearson Product Moment* analysis that ($r = 0.436$, $p > 0.05$). The p-value for both rater 1 and rater 2 are 0.436*. It proved that the level of correlation of the data is moderate. So, the result of reliability posttest in control group is reliable.

4.2 Data Analysis

4.2.1 Normality Test

After conducting pretest to the experimental and control group in two different sections, the researcher got the result score (*see appendix 15*). Then, the researcher would test the normality of the data for both two groups. According to Susetyo (2010:271), the normality test is used to know the form of sample distribution that is used in a research. He further says that normality test has to be known in parameter statistics. Because of this research is parameter statistics, the researcher has to do the normality test for these data. This research included

parameter statistics because the sample of the population here is more than 20 students. In Conover's view (1990) in Susetyo (2010:140), the sample that is needed for parameter statistic in order to be normal distribution is at least 20. This table below is the result of normality test of experimental and control group in pretest.

Table 4.5 Normality Test of Control and Experimental Group in Pretest

One-Sample Kolmogorov-Smirnov Test

		Experimental	Control
N		30	30
Normal Parameters ^{a,b}	Mean	62.70	64.20
	Std. Deviation	6.293	5.054
Most Extreme Differences	Absolute	.243	.196
	Positive	.125	.115
	Negative	-.243	-.196
Kolmogorov-Smirnov Z		1.329	1.075
Asymp. Sig. (2-tailed)		.058	.198

a. Test distribution is Normal.

b. Calculated from data.

Based on the table above shows that the significance value of experimental group in pretest is $0.058 > \alpha (0.05)$ and the significance value of control group in pretest is $0.198 > \alpha (0.05)$. The significance value of both group are higher than $\alpha (0.05)$. It means that H_0 is accepted. So, the test distribution of both two groups are normal.

Then, the researcher would test the normality test of posttest of both experimental and control group after the researcher got the result score (*see appendix 18*). This table below is the result of normality test of experimental and control group in posttest.

Table 4.6 Normality Test of Control and Experimental Group in Posttest

		Experimental	Control
N		30	30
Normal Parameters ^{a,b}	Mean	78.57	70.27
	Std. Deviation	3.766	2.753
Most Extreme Differences	Absolute	.126	.195
	Positive	.126	.098
	Negative	-.108	-.195
Kolmogorov-Smirnov Z		.693	1.067
Asymp. Sig. (2-tailed)		.723	.205

a. Test distribution is Normal.

b. Calculated from data.

Based on the table above shows that the significance value of experimental group in posttest is $0.723 > \alpha (0.05)$ and the significance value of control group in posttest is $0.205 > \alpha (0.05)$. The significance value of both group are higher than $\alpha (0.05)$. It means that H_0 is accepted and H_1 is refused. So, the test distribution of both two groups are normal.

4.2.2 Homogeneity Test

After examining the normality test, the researcher would like to find the homogeneity test between experimental and control group in pretest. However, the pretest score of both experimental and control group are homogeneous. The homogeneity test could be done if the result of pretest of experimental and control had been known. The aim of homogeneity is to know the population has same characteristics or intelligences in writing skill. Homogeneity test was done to measure and know whether both of experimental and control group have the same capability or not. The table below is result of the homogeneity test.

Table 4.7 Homogeneity Test

Test of Homogeneity of Variances

Nilai

Levene Statistic	df1	df2	Sig.
3.042	1	58	.086

Based on the criteria of homogeneity test was explained in the previous chapter, H_0 is accepted if *p value* is higher than α (0.05). It means that the capability of both experimental and control group are homogeneous. Otherwise, if the *p value* is lower than α (0.05), it means that capability of both experimental and control group are not homogeneous.

From the table above, it can be seen that the significance value of test homogeneity of variance is $0.086 > \alpha$ (0.05). It means that H_0 is accepted and H_1 is refused. So that, the capability of both experimental and control group are homogeneous. For that reason, both experimental and control group have complied the normality and homogeneity data, so, the result of experimental and control group can be calculated using parametric statistics test.

4.2.3 T-test Calculation

4.2.3.1 T-test Calculation of Pretest

After the researcher examined normality and homogeneity test for both experimental and control group, the researcher would calculate the mean scores of experimental and control group. The researcher wanted to know the scoring and compare means the result of pretest between experimental group and control group. The researcher also compared the result score between experimental and control group to answer the research question. Pretest score was compared to find the difference between experimental and control group before treatment applied. While, posttest score was compared to find the differences between experimental and control group after the treatment and to identify whether RAFT and TREE strategies were effective or not in teaching writing descriptive text.

In this research, there are 30 students in each experimental and control group who was conducted in pretest. The result of pretest score shows that both of group are equal. As stated before in the previous chapter, to find the differences between experimental and control group the researcher compared their score by using Independent sample T-test in SPSS 17.0.

Table 4.8 Mean Scores of Control and Experimental Group in Pretest

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Experimental	30	50	70	62.70	6.293
Control	30	54	72	64.20	5.054
Valid N (listwise)	30				

The table above is the scoring and compare means the result of pretest between experimental group and control group. The table shows that both experimental and control group consist of 30 students. Both of them had done the pretest with the same material of writing descriptive text. Based on the table above, the minimum score of experimental was 50 and the maximum score was 70 while the minimum score of control group was 54 and the maximum score was 72. Furthermore, the table shows that the mean score of experimental group was 62.70 and control group was 64.20. Based on the table above, the researcher found out that the score of experimental group is lower than control group. It means that the achievement of control group was higher than experimental group at the beginning of the research.

In addition, standard deviation of experimental group was higher than control group. The standard deviation of experimental group was 6.293 while standard deviation of control group was 5.054. It can be concluded that the scores of experimental group were more heterogeneous than control group.

Even though, experimental group had a lower score than control group in pretest, but their writing skill were equal. In order to make a sure, the researcher

shows Independent sample T-test analysis that has been used to analyze the pretest score of both experimental and control group. The table below is the Independent sample T-test calculation.

Table 4.9 Independent Sample Test Result of Pretest

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Nilai	Equal variances assumed	3.042	.086	-1.018	58	.313	-1.500	1.474	-4.450	1.450
	Equal variances not assumed			-1.018	55.421	.313	-1.500	1.474	-4.453	1.453

According to Pallant (2010:241), if the sig. value for Levene's test is larger than 0.05, it should use the first line in the table, which refers to Equal variances assumed. Whereas, if the sig. value for Levene's test is lower than 0.05, it should use the second line in the table, which refers to Equal variances assumed.

From the table above, it can be known that the significant value of Levene's Test for Equality of Variances is $0.086 > \alpha (0.05)$. It means that the significant value is larger than 0.05. So, for knowing the result of t-test for Equality of Means, the researcher see the first line in the table sig. (2-tailed) which refers to Equal variances assumed. So, it can be seen that the sig.(2-tailed) of t-test for Equality of Means is 0.313 is larger than 0.05, so H_0 is accepted and H_1 is refused. It means that there is no different significant between experimental and control group.

From all of explanation above, it can be concluded that the writing skill ability between two groups here (experimental and control group) were same or equal at the beginning of the research.

4.2.3.2 T-test Calculation of Posttest

After administering pretest in both control and experimental group, the researcher applied a treatment using RAFT and TREE strategies in teaching writing descriptive text for experimental group which was done twice on 30th April 2016 and 3rd May 2016, while, control group did not get any kind of treatment and they were taught as usual.

Then, after the researcher applied the treatment in experimental group, the researcher conducted the posttest in both experimental and control group on 4th May 2016 and 10th May 2016. The posttest was given in order to find out the significance different of the students' writing skill in writing descriptive text between control and experimental group before and after treatment. The Independent Sample T-test analysis was also used to analyze the posttest scores of both experimental and control group.

Table 4.10 Mean Scores of Control and Experimental Group in Posttest

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Experimental	30	70	85	78.57	3.766
Control	30	64	75	70.27	2.753
Valid N (listwise)	30				

The table shows that both experimental and control group consist of 30 students. Both of them had done the posttest with the same material of writing descriptive text. Based on the table above, the minimum score of experimental group was 70 and the maximum score of experimental group was 85. Otherwise, the minimum score of control group was 64 and the maximum score of control group was 75. Furthermore, the table shows that the mean score of experimental group was 78.57 (SD = 3.766) and control group was 70.27 (SD=2.753). Based on the table above, the researcher found out that the score of experimental group is

higher than control group in posttest. In order to make a sure that the result was significant, the researcher shows the Independent Sample T-test on SPSS 17.0 result in the table below.

Table 4.11 Independent Sample Test Result of Posttest

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Nilai	Equal variances assumed	3.771	.057	9.744	58	.000	8.300	.852	6.595	10.005
	Equal variances not assumed			9.744	53.112	.000	8.300	.852	6.592	10.008

Pallant (2010:242) says, “To find out whether there is a significant difference between your two groups, refer to the column labelled Sig. (2-tailed), which appears under the section labelled t-test for Equality of Means.” That’s why to find out whether both experimental and control group there is a significant or not, the researcher saw the sig.(2-tailed) in the second line of t-test table which refers to Equal variances not assumed.

Based on the table above, it can be seen that the sig. (2-tailed) is 0.000 or less from 0.05 so H_0 is refused and H_1 is accepted. It means that the mean scores of experimental and control group in posttest have the significant different with 95% Confidence Interval of the Difference.

From the result above, it can be concluded that there is significant different in the mean scores between control and experimental group after having class using RAFT and TREE strategies in writing descriptive text.

4.2.3.3 Paired Sample T-Test

According to Pallant (2010:246), to know the result of Paired Sample Test, it can be seen from the final column which labelled Sig.(2-tailed). She also says that if the p-value is less than 0.05, it means that there is a significant difference between two scores. In the table below is the result of Paired Sample Test between pretest and posttest in experimental group.

Table 4.12 Paired Samples Test Result of Experimental Group

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Posttest_Experimental - Pretest_Experimental	15.867	6.632	1.211	13.390	18.343	13.104	29	.000

From the table above, shows that the mean scores of paired sample t-test between posttest and pretest in experimental group is 15.867 with standard deviation 6.632. In this research used 95% confidence interval of the difference, means that it used $\alpha = 5\%$ or 0.05. The sig. (2-tailed) here shows 0.000 less than α (0.05). So it can be concluded that H_0 is rejected and H_1 is accepted. Because of the significant 2-tailed here is $0.000 < 0.05$, it means that there is significant difference (progress) between posttest and pretest in experimental group.

4.2.4 Eta Squared

To measure the effect size of the treatment that was given in experimental group, the researcher need to calculate it by using Eta Squared Calculation. According to Pallant (2010:243), eta squared is used to get more valid data that is able to support the result of T-test. The result of Eta Squared can show the data is effective or not. She further explains that there are three scales of Eta Squared, which .01 is small effect, .06 is moderate effect, and .14 is large effect.

Result	Categories
0.01	Small effect
0.06	Moderate effect
0.14	Large effective

She also explains about the formula for calculating Eta Squared can be seen below:

$$\text{Eta squared} = \frac{t^2}{t^2 + (N_1 + N_2 - 2)}$$

Here is the calculation of Eta Squared of this research:

$$\text{Eta squared} = \frac{(9.744)^2}{(9.744)^2 + (30 + 30 - 2)}$$

$$\text{Eta squared} = \frac{94.945536}{94.945536 + 58}$$

$$\text{Eta squared} = \frac{94.945536}{152.945536}$$

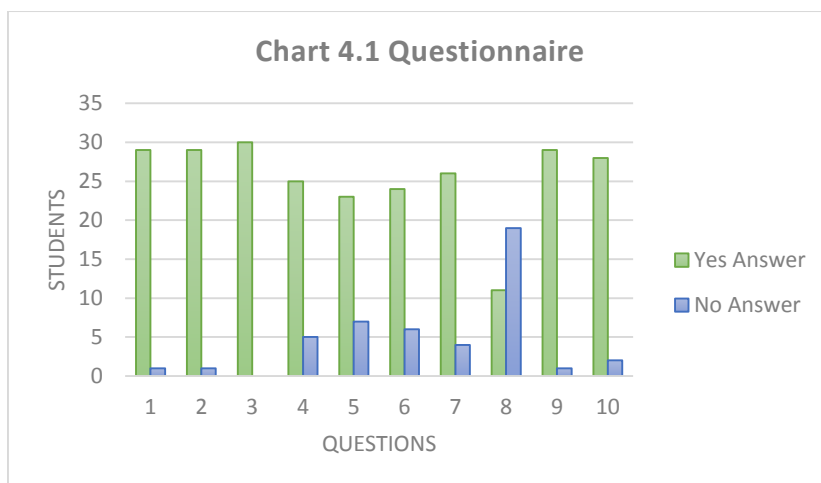
$$\text{Eta squared} = 0.62 \text{ (large effect)}$$

From the calculation above, it can be found that the result of eta squared is 0.62 and it is higher than 0.14. So, it means that the comparison of mean scores between experimental and control group in posttest is large effect. Then, it can be concluded that the null hypothesis is rejected and the alternative hypothesis is accepted. So that, the RAFT and TREE strategies are effective in teaching writing descriptive text at tenth graders.

4.2.5 Questionnaire

After the researcher gave all the pretest, treatment, and posttest to the experimental group, then the researcher conducted a questionnaire to them on May 17, 2016. The aim of giving questionnaire is to know how the students response after having class using RAFT and TREE strategies in writing descriptive text at Tenth grades of senior high school students at SMA Wachid Hasyim 1 Surabaya.

The questionnaire of this research was constructed in form of checklist and consists of ten questions (*see appendix 8*). The questionnaire was only given to the experimental group. Here is the result of questionnaire in this research (*see appendix 19*).



Based on the diagram above, shows that:

In the first question, “Do you agree that RAFT and TREE strategies are used in teaching writing descriptive text in the school?” There are 29 students answered Yes and only 1 student answered No. It proves that 97% students agree that RAFT and TREE strategies are used in teaching writing descriptive text in the school.

In the second question, “Do you prefer RAFT and TREE strategies to learn descriptive text?” There are 29 students answered Yes and only 1 student answered No. It means that 97% students prefer RAFT and TREE strategies to learn descriptive text.

In the third question, “Are the implementation of RAFT and TREE strategies in teaching writing descriptive text useful for you?” There are 30 students answered Yes. It means that all the students agree that the implementation of RAFT and TREE strategies in teaching writing descriptive text are useful.

The fourth question, “Are teaching writing using RAFT and TREE strategies interested?” There are 25 students answered Yes and 5 students answered No. It

proves that 83% students think that teaching writing using RAFT and TREE strategies are interested.

The fifth question, “Do RAFT and TREE strategies help you to know more about descriptive text?” There are 23 students answered Yes and 7 students answered No. It means that 77% students agree that RAFT and TREE strategies can help them to know more about descriptive text.

The sixth question, “Do RAFT and TREE strategies give you more creativity or idea in writing descriptive text?” In this question, there are 24 students answered Yes and 6 students answered No. It proves that 80% students agree that RAFT and TREE strategies make them think more creative or have good idea in writing descriptive text.

The seventh question, “Do RAFT and TREE strategies increase your quality of study in writing descriptive text?” In this question, there are 26 students answered Yes and 4 students answered No. It means that 87% students believe that RAFT and TREE strategies can increase their quality of study in writing descriptive text.

The eighth question, “Is there any difficulty in learning descriptive text using RAFT and TREE strategies?” In this question, there are 11 students answered Yes and 19 students answered No. It means that only 37% students think that RAFT and TREE strategies difficult to be learned in writing descriptive text and there are 63% students think that RAFT and TREE strategies easy to be learned in writing descriptive text.

The ninth question, “Can RAFT and TREE strategies make your time more efficient in writing descriptive text?” There are 29 students answered Yes and only 1 student answered No. It proves that 97% students agree that RAFT and TREE strategies can make their time more efficient in writing descriptive text.

The last question, “Do RAFT and TREE strategies motivate you in learning English material?” In this question, there are 28 students answered Yes and 2 students answered No. It means that 93% students agree that RAFT and TREE strategies can motivate them in learning English material.

For all of the questions of questionnaire in this research, most of students agree that RAFT and TREE strategies are interesting and useful to help their writing ability in writing descriptive text. It can be concluded that the students' response about teaching writing descriptive text using RAFT and TREE strategies are positive. It means that RAFT and TREE strategies in teaching writing descriptive text at tenth grades of senior high school students at SMA Wachid Hasyim 1 Surabaya are effective and interesting.

4.3 Discussion

Based on all of the explanation above, it can be concluded that the use of RAFT and TREE strategies in teaching writing descriptive text at SMA Wachid Hasyim 1 Surabaya gave a significant effect. It is proven that the students of experimental group got the significant different result after having class using RAFT and TREE strategies in writing descriptive text. The experimental group got a better scores than control group in writing descriptive text in posttest.

It is supported by Santa (1988) in Groenke & Puckett (2006:22) argues that the RAFTs Technique is a system to help students understand their role as a writer, the audience they will address, the varied formats for writing, and the expected content. Whereas, according to Graham et al (2003:11), TREE helps students formulate basic elements of persuasion are writing a convincing topic sentence, writing at least three reasons, writing examples to support each reason, and wrapping it up with a good ending sentence.

Based on the students' score of posttest between experimental and control group, it can be stated that the use of RAFT and TREE strategies can be an effective technique in teaching writing descriptive text. However, the result of this research showed that there is a significant difference of writing ability between students who are taught by using RAFT and TREE strategies and those who are not.

In this section, the researcher would like to explain the analysis result of this research which was conducted to the tenth graders of SMA Wachid Hasyim 1 Surabaya.

The first analysis is about the result of pretest score between experimental and control group. The pretest was given to both experimental and control group to know whether both of classes homogeneous or not. It can be seen from the result of test homogeneity of variance is $0.086 > \alpha (0.05)$. It means that both experimental and control group have the equal ability. It is also proven by using the result of Independent Sample T-test calculation which the sig.(2-tailed) of t-test for Equality of Means is $0.313 > \alpha (0.05)$. It means that there is no different significant between experimental and control group.

The second analysis is about the result of posttest score that had been given to both experimental and control group after treatment. Based on table 4.6 about the mean scores of experimental and control group in posttest above, showed that the mean scores of experimental group was higher than control group. The experimental group got 78.57 was higher than control group which got 70.27. Furthermore, the calculation of T-test showed that there was a significant difference of posttest score of experimental and control group. It is proven by the result of Independent Sample T-test calculation which the sig. (2-tailed) of t-test for Equality of Means is $0.000 < \alpha (0.05)$ or less from 0.05. It means that the mean scores of experimental and control group in posttest were significantly different. It seems that the treatment that was given to the experimental group was successful.

The last analysis is about the effect size of experimental group. To measure the effect size of a treatment that was given in experimental group, the researcher using Eta Squared Calculation to calculate it. The result of Eta Squared showed the data is effective. It proved from the result of eta squared is 0.62 and it is higher than 0.14. So, it means that the comparison of mean scores between experimental and control group in posttest is large effect. So that, it also describes that RAFT and TREE strategies are effective for teaching writing descriptive text to tenth grades.

To sum up, after comparing the students' composition in pretest and posttest between experimental and control group, finally the researcher found the significant difference of them. It can be seen that the experimental group who were taught using RAFT and TREE strategies had the significant different effect than the control

group who were not taught using RAFT and TREE strategies in writing descriptive text. It can be concluded that the use of RAFT and TREE strategies are effective to help the students in writing skill, especially in writing descriptive text for tenth graders students.