

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

In a research, this chapter focus on presenting of finding and the result of data analyze.

A. Finding

In this section, the researcher explains 2 points, they are discussing about the result of data analysis and hypothesis testing

1. Data Presentation

In this part, the researcher wants to know students' ability in reading comprehension before and after being taught by using pre-questioning technique. Before giving the treatment, the researcher did pre-test to know the ability of student's achievement in reading comprehension, it was conducted on 23rd November 2017. The research was conducted on two meeting. The first meeting was held on 24th November 2017 and then on 25th November 2017. For two days, the researcher did not only give the treatment, but also hold evaluation test to measure the ability of student's achievement in reading comprehension. Besides that, the researcher also wants to know whether or not there is any significant effect using Peer Tutoring Strategy on students' reading achievement in descriptive text of the tenth grade of SMK NU Tulungagung.

Before conducting the research, the researcher observed the situation of the classroom and shared with Mr. Imam as Waka Kurikulum of SMK NU Tulungagung.

He said that the student of tenth grade have good achievement in reading comprehension, because they are having an extra hour English lesson every day.

In this research, researcher used 2 classes, they are X Multimedia class (18 students) and X TKJ class (23 students). To describe the data, the researcher makes score criteria from the test (see table 6). The function of these criteria in this researcher is wanted to know about students' reading achievement that is good or not in the class. The researcher classifies total of the scores into five categories, they are: Very good, Good, Enough, Less, Bad/Low. The table is as follow:

Table 6 Scores Criteria:

No.	Interval Class	Criteria	Grade
1.	87 - 100	Very good	A
2.	75 - 86	Good	B
3.	63 - 74	Enough	C
4.	50 - 62	Less	D
5.	0 - 49	Bad/Low	E

The table above describe about the classifies score of the test,

- number one describes about very good score, because 87 until 100 and the students get A score.

- number two describes about good score, because 75 until 86 and the students get B score.

- number two describes about enough score, because 63 until 74 and the students get C score.

- number two describes about less score, because 50 until 62 and the students get D score.

- number two describes about less score, because 0 until 49 and the students get E score.

From the description of the table, the researcher explains about the students reading achievement in experiment class and control class. The researcher wants to describe about both score in pre-test and post-test in data presentation below:

Data Presentation Pre-test Score in Experiment Class

This data was taken the result of student's pre-test score before treatment. In pre-test, type of the answer questions by multiple choice and based on the text. The researcher chooses multiple choice and true false question because it is objective question, so more considered suitable for their level. The question of multiple choice consists of 3 text such as: The Hobbit, My Pet, Paris and text of true false question is My Best Friend. That's all taken from internet rather than taken in the textbook. The researcher chooses simple text, because if the texts is simple that is make students enjoy reading the text. In the research, there was 41 students' in the class as participants which divided into 2 class. First class, X Multimedia consist of 10 females and 8 males as an experimental class which they would be taught by using Peer Tutoring Strategy. Meanwhile in X TKJ class as control class consist of 23 students.

After knowing the result of pretest, then the researcher was describing the data with descriptive. Descriptive statistic is used to describe of the data in a study with the simple and the measures. To describe the data of the research, researcher using SPSS program 16.0 version, it was known that mean of students score in pretest was 76,33, the median of pretest was 75,00, the mode was 70, in here the minimum score of the pretest was 58 and the maximum score of the pretest was 93. On under the table 7 researcher describe the data of the pretest in experiment class. The researcher used SPSS 16.0 to count the data of pre-test in experiment class.

Table 7 Descriptive Statistic Pretest in Experiment Class.
Statistics

pretest		
N	Valid	18
	Missing	0
Mean		76.33
Median		75.00
Mode		70 ^a
Minimum		58
Maximum		93

Based on the table 7 above, output descriptive statistic pre-test in experiment class and the subjects of pre-test in experiment class that consist of 18 students of X Multimedia, the table 7 above, show the mean score in pretest is 76,33 and based on the criteria of students score that is good score. Then the median is 75,00, the mode of the pretest score is 70, and the minimum score of pretest is 58, meanwhile the maximum score is 93. Score of pre-test in experiment class can see *appendix 1*. After

known about the descriptive data of pre-test, the researcher continued with frequency of pretest score in experiment class.

Frequency of Pretest Score in Experiment Class

Frequency of pretest score showed in table below. It showed the minimum score until the maximum score of pretest. After known the mean score of the pretest on the table above, the researcher conclude that based on that the standard of students score criteria are the students who got the less score are 3 students, they are didn't passed in this test because they got D score. Meanwhile, students who got enough score are 6 students and they are got C score. Afterward, student who got good score or got B score are 3 students and 6 students got A score or they are got very good score (see table 8).

Table 8 Pretest Score in Experiment Class
pretest

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 58	2	11.1	11.1	11.1
60	1	5.6	5.6	16.7
63	1	5.6	5.6	22.2
68	1	5.6	5.6	27.8
70	4	22.2	22.2	50.0
80	1	5.6	5.6	55.6
83	2	11.1	11.1	66.7
88	1	5.6	5.6	72.2
90	4	22.2	22.2	94.4

93	1	5.6	5.6	100.0
Total	18	100.0	100.0	

Data Presentation of students Post-test Score in Experiment Class

In a research after the treatment, researcher gives a test again or gives a post-test. The form of the question post-test not different away with the pre-test, to answer the question about descriptive text. One of the texts changed in this post-test, the researcher changed The Hobbit text with Yogyakarta text in the post-test of experiment class. The researcher has change the text, because a lot of students are confused with the text of The Hobbit. They feel that the text used difficult words to understand. So, the researcher has change with simple text for students. This test was intended to know students reading comprehension achievement when they taught by using Peer Tutoring Strategy. In the post-test, highest score was 93 and the lowest score was 58.

From the result of students' post-test score, the researcher was continued with descriptive statistics by using SPSS program 16.0 for windows. It was known that mean of the post-test score was 80.28, the median was 83,00, the mode in table 9 below is 83, while the minimum score of post-test is 58 and the maximum score is 93. For the details of the table can be seen in the table 9 below. Score of pre-test in experiment class can see *appendix 2*.

**Table 9 Descriptive Statistic Post-Test in Experiment Class.
Statistics**

posttest

N	Valid	18
	Missing	0
Mean		80.28
Median		83.00
Mode		83
Minimum		58
Maximum		93

Based on the table above that consist of 18 students of X Multimedia, the table above show the mean score in post-test is 80,26 and based on the criteria of students score that is good score. Then the median is 83,00, the mode of the post-test score is 83, and the minimum score of post-test is 58, meanwhile the maximum score in post-test of X Multimedia is 93. After known about the descriptive of data, researcher was continued with frequency of post-test score in experiment class (see table 10).

Frequency of Post-test in Experiment Class

Frequency of post-test score showed in table 10 below. It showed the minimum score until the maximum score of post-test. After known the mean score of

the post-test on the table above, the researcher conclude that based on that the standard of students score criteria are the students who got the less score are 2 students, they are didn't passed in this test because they got D score. Meanwhile, students who got enough score are 5 students and they are got C score. Afterward, student who got good score or got B score are 6 students and 5 students got A score or they are got very good score (see table 6).

Table 10 Frequency Post-test in Experiment Class posttest

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 58	1	5.6	5.6	5.6
63	1	5.6	5.6	11.1
70	1	5.6	5.6	16.7
75	4	22.2	22.2	38.9
83	6	33.3	33.3	72.2
90	3	16.7	16.7	88.9
93	2	11.1	11.1	100.0
Tot al	18	100.0	100.0	

From the table 10 above, the researcher continued the data presentation of control class with descriptive statistics. The way of calculating pretest score on control class were same with calculating pre-test of experiment class. For the details of the data can be seen on table below (see table 11).

Descriptive Statistics Pre-test in Control Class.

Pre-test in control class were same with pre-test in experiment class. The item of question in this pre-test consist of 20 multiple choices and 5 True-False statement.

They are 23 students as subject at the research. For the details information we can saw on the table 11 below.

Table 11 Descriptive Statistic of Pre-Test in Control Class Statistics

Pretest

N	Valid	23
	Missing	0
Mean		74.83
Median		75.00
Mode		58 ^a
Minimum		58
Maximum		93

Based on the table 11 above that consist of 23 students of X TKJ, the table above show that the mean score in pre-test is 74,83 and based on the criteria of students score that is good score. Then the median is 75,00, the mode of the pre-test score is 58, and the minimum score of pre-test is 58, meanwhile the maximum score in pre-test of X TKJ is 93. After known about the descriptive of data, researcher continued with frequency of pre-test score in control class (see table 12).

Table 12 Frequency of Students Pre Test Score in Control Class

Pretest

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 58	4	17.4	17.4	17.4

60	2	8.7	8.7	26.1
68	3	13.0	13.0	39.1
75	4	17.4	17.4	56.5
80	1	4.3	4.3	60.9
83	4	17.4	17.4	78.3
90	4	17.4	17.4	95.7
93	1	4.3	4.3	100.0
Total	23	100.0	100.0	

Frequency of pretest score showed in table 12 above. It showed the minimum score until the maximum score of pre-test in control class. After known the mean score of the pre-test on the table above (table 12), the researcher conclude that based on that the standard of students score criteria are the students who got the less score are 6 students, they are didn't passed in this test because they got D score in this test. Meanwhile, students who got enough score are 7 students and they are got C score in pre-test. Afterward, student who got good score or got B score are 5 students and 5 students got A score or they are got very good score pre-test in control class.

Data Presentation of Students Post-test Score in Control Class

There are still descriptions of data in control class, the researcher will describe about the result of the post test score in control class with descriptive statistics. In this class consist of 23 students and the type of the question same with question in experiment class that consist of 20 item of question multiple choices and 5 True-False statement. The differences about the experiment class and control class is when the researcher using Peer Tutoring Strategy to applied as treatment in the class experiment and the treatment before the post-test that is experiment class, while in

control class researcher using conversional method as usually without any treatment strategy. The details of post-test in control class can be seen at table 13 below.

Table 13 Descriptive Statistic Post-test in Control Class Statistics

Posttest

N	Valid	23
	Missing	0
Mean		78.35
Median		80.00
Mode		75
Minimum		58
Maximum		93

Based on the table 13 above that consist of 23 students of X TKJ, the table 13 above show the mean score in post-test is 78,35 and based on the criteria of students score that is good score. Then the median is 80,00, the mode of the post-test score is 75, and the minimum score of post-test is 58, meanwhile the maximum score in post-test of X TKJ is 93. After we know about the descriptive of data, researcher was continued with frequency of post-test score in control class (see table 14).

Table 4 Frequency Students Post-Test in Control Class

Posttest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	58	1	4.3	4.3	4.3
	60	3	13.0	13.0	17.4
	68	1	4.3	4.3	21.7
	70	1	4.3	4.3	26.1
	75	5	21.7	21.7	47.8
	80	2	8.7	8.7	56.5
	83	3	13.0	13.0	69.6
	90	3	13.0	13.0	82.6
	93	4	17.4	17.4	100.0
Total		23	100.0	100.0	

Frequency of students' post-test score in control class

Based on the table above that consist of 23 students of X TKJ show frequency of post-test after distributed the test, there are 4 students got less score or D score. It means that on reading comprehension achievement is bad or low, and 7 students got enough score or got C score in reading comprehension. Students got B score were 5

students or they are got good score in reading comprehension achievement and 7 students got very good score or A score in reading comprehension achievement.

From the descriptive of the data above, the researcher has conclusion there are different score among after and before taught by using Peer Tutoring Strategy. The data present that score in experiment group is higher and better after taught using Peer Tutoring Strategy, while the score in control group that taught without using Peer Tutoring Strategy. The detail of the data score can be seen in the bar chart below.

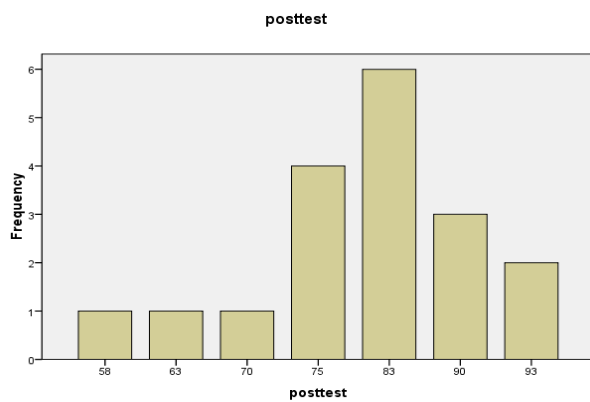


Figure Graph 1 Post-test in Experiment Class

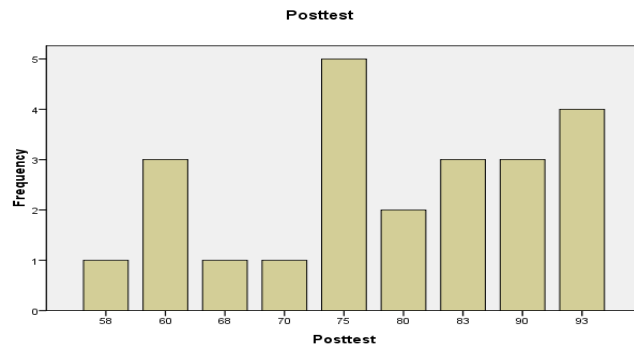


Figure Graph 2 Post-test in Control Class

Based on the graph above, it can be concluding that the result of the data description of score post-test in experiment class after being taught by using Peer Tutoring Strategy better than score in the control class have didn't show significant difference. So, Peer Tutoring Strategy is effective to teach reading comprehension especially in this research, the researcher to teach descriptive text for the students at SMK NU Tulungagung.

B. Data Analysis

Data analysis it's important to do to know to know different score of students reading comprehension achievement in descriptive text materials before and after done the treatment or before and after using Peer Tutoring Strategy (PTS) in this school. To analyze the data on the difference score before and after using Peer Tutoring Reading (PTS), the researcher used statistical test by *independent sample t-test*, because the sample gain from different sample. In this researcher, researcher obtained different class (X TKJ and X Multimedia class) describe by SPSS 16.0 to make sure the effectiveness of Peer Tutoring Strategy (PTS) on the student reading achievement. The result of the describe the data as follow:

**Table 15 Group of Statistic
Group Statistics**

group	N	Mean	Std. Deviation	Std. Error Mean
score experiment	18	82.11	8.989	2.119
control	23	69.09	8.442	1.760

From the table 15 above, *output independent sample statistic* and the table describe about the mean score of post-test in experiment class is 82.11 and mean of post-test in control class is 69.09. Next, note that the sample sizes or N used for test are 18 (experiment group) and 23 (control group). While, standard deviation post-test in experiment class is 8.989 and standard deviation post-test on control class is 8.442. And in this research, mean standard error post-test in experiment class is 2.119 and mean standard error post-test in control class is 1.760. For details of the result of independent sample test can be seen in table 16 below:

Table 16 Independent Sample Test
Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	M Dff	Std. Error Dff	95% Cnfidence Interval of the Dff	
									Low	Up
score	Equal variances assumed	.189	.667	4.765	39	.000	13.024	2.733	7.496	18.552
	Equal variances not assumed			4.728	35.498	.000	13.024	2.755	7.435	18.614

Based on Table 16 above *output of independent sample test* indicated the result of compare analysis using T-test. Before calculating of the T-test, it is important to do investigate homogeneity test analysis with Levene's test (F-test). It means that F-test test *Equal variance assumed*, because the variance is same. And if the test use equal

variance not assumed that the variances is different. The statistical hypothesis of this research can be seen:

Ho: both of the variances are same (the variances between of experiment group and control group are same)

Ha: both of the variance are different (the variances between of experiment group and control group are different).

Based on the statement above, Ho (null hypothesis) is accepted if p-value $> 0,05$ and Ha (alternative hypothesis) is rejected if p-value $< 0,05$. Here in this research score of p-value is $0,00 < 0,05$ so that Ho is rejected. So, in this score of probability sig with *Equal variances not assumed*, because the variances of experiment group and control group are different. After establish the score of F-test, next the researcher establishes the hypothesis in independent sample t-test. The criteria of the hypothesis used as follows:

1. If the significant level is bigger than significant value, the alternative hypothesis (Ha) is accepted and null hypothesis (Ho) is rejected. It means that there is different score between experiment class and control class . The different is significant.
2. If the significant level is smaller than significant value, the null hypothesis (H0) is accepted and the alternative hypothesis (Ha) is accepted. It means that there is not different score between experiment class and control class. The different is not significant.

According to statistical calculation using SPSS version 16.0, the researcher describes about significant value. Based on the table 16, the significant value of the research is 0,000 and the significant level is 0,05. In the research, alternative hypothesis (Ha) can be accepted when the significant level (0.05) bigger than significant value (0.000) and the null hypothesis (Ho) is rejected. While the null hypothesis (Ho) is accepted when significant level (0,05) smaller than significant value (0,000) and the alternative hypothesis is rejected. From the data above, significant level (0,05) is bigger than significant value (0,000), so it can be describing that the alternative hypothesis (Ha) is accepted and the null hypothesis (Ho) is rejected in this researcher. It means, the data showing about the different score on the students reading comprehension achievement between experiment group and control group. The differences of the data on the *independent sample t-test* that the mean of experiment class after taught by using Peer Tutoring Strategy (PTS) is 82.11 and mean of control class after taught without Peer Tutoring Strategy (PTS) that the class using conventional method is 69.09 it can be seen on table 15 above. The researcher used *independent sample t-test*, because to find out the difference of students' mean score between the experimental class and control class. That means of the statement before is the mean after taught by Peer Tutoring Strategy (PTS) is higher than after taught without Peer Tutoring Strategy (PTS). From the table 16 above, the mean difference between both of those group are 13.024, and different about the lower and upper are 18.614 - 7.435. So, it can be concluding that taught using Peer Tutoring

Strategy on student reading achievement for tenth grade at SMK NU Tulungagung is effective for teaching reading comprehension.

C. Discussion

Based on the result above of research finding, demonstrated that Peer Tutoring Strategy (PTS) at SMK NU Tulungagung was effective used in teaching descriptive text materials, because it showed that there is significant difference score of students' achievement in reading comprehension before and after being taught by using Peer Tutoring Strategy and using conventional learning method (without using Peer Tutoring Strategy). It means score of reading comprehension before (pre-test) being taught using Peer Tutoring Strategy is bad or the score is not enough, because the score mean is 76,33 (see table 7) and after(post-test) taught using Peer Tutoring Strategy is good, because the mean score after taught is 82,28 (see Table 9). It showing that there is the difference score between the mean of pre-test and the mean of post-test. In this research, the mean of post-test is higher than the mean score of pre-test in experiment class who were taught by Peer Tutoring Strategy for teaching reading comprehension, especially in this research descriptive text for the materials.

From the data result above, showed that to peer tutoring and conventional teaching were significantly different. Because, with peer tutoring had significantly higher achievement than those in conventional teaching for teaching reading comprehension. This finding could be attributed to the cooperative undertaking of pair of students in practicing basic skills (Garringer, 2008) and sharing not only the answer but the process used to reach answers (O'Shea, 2010). Thus from the result

above, working in pair is better than working individually in solving problems because misunderstanding can be quickly identified and corrected with their pair.