

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

In this chapter, the researcher presents the finding and discussion that included of the description of data, data analysis, the result of normality and homogeneity testing, hypothesis testing, and discussion.

A. The Description of Data

In this section, the writer presents the descriptive statistics of of the students' writing achievement before and after taught by using project based learning in teaching recount text. The result of students' writing recount text in term of pre-test and post-test were analysed by using writing scoring rubric.

The tests were given to the tenth grade of MA Ma'arif Udanawu. The number of studnets were 33. The students' score in pre-test and post-test can be seen in table 4.1.

Table 4.1 The Result of Students' Score in Pre-test and Post-test

No	Subject	Pretest	Post test	Gained score	Criteria score in Post-test
1	S1	60	60	0	Fair
2	S2	65	65	0	Fair
3	S3	50	65	15	Good
4	S4	75	80	5	Good
5	S5	50	55	5	Fair
6	S6	45	60	15	Fair
7	S7	70	80	10	Good
8	S8	50	55	5	Fair
9	S9	60	70	10	Good
10	S10	60	80	20	Good
11	S11	60	70	10	Good
12	S12	45	50	5	Fair

13	S13	70	75	5	Good
14	S14	50	70	20	Good
15	S15	45	50	5	Fair
16	S16	40	55	15	Fair
17	S17	55	60	5	Fair
18	S18	60	70	10	Good
19	S19	60	75	15	Good
20	S20	80	85	5	Excellent
21	S21	50	70	20	Good
22	S22	55	60	5	Fair
23	S23	75	85	10	Excellent
24	S24	40	45	5	Fair
25	S25	70	85	15	Excellent
26	S26	60	70	10	Good
27	S27	40	50	10	Fair
28	S28	45	60	15	Fair
29	S29	60	70	10	Good
30	S30	45	50	5	Fair
31	S31	40	55	15	Fair
32	S32	60	75	15	Good
33	S33	45	55	10	Fair
Total		1835	2160	325	

There were 33 students as subjects or respondents of the research. Based on the table 4.1, it can be seen the highest and the lowest scores of the students. The highest score of pre-test was 80 and the lowest score of pre-test was 40. While, the highest score of post-test was 85 and the lowest score of post-test was 50.

After got the pre-test and post-test score, the writer used IBM SPSS 16.0 to organize the descriptive statistics data and frequency of score.

1. Computation Result of The Students' Score Before Being Taught by Using Project Based Learning (Pre-Test)

The pre-test was given by asking students to write a recount text about first day in senior high school. There were 33 students as the sample of research. Each student was given 60 minutes to write the recount text. This test was intended to know the students' writing achievement before students got the treatment.

The statistics data of pre-test scores (Table 4.2) and frequency distribution of pre-test (Table 4.3) can be seen below:

Table 4.2 Statistics Data of Pre-test

Statistics		
pretest		
N	Valid	33
	Missing	0
Mean		55.61
Median		55.00
Mode		60
Sum		1835

Based on the table 4.2 above, we can be seen there were 33 students followed the pre-test. The mean of the students' score in pretest was 55.61. Then, the median score was 55.00, it means that the middle score of pretest was 55.00 in 33 students. The mode of pretest score was 60, it means that the most frequently appeared score was 60. The total all scores of pre-test was 1835.

The frequency of the students' score was presented in the following table below:

Table 4.3 Frequency of Score in Pretest

		pretest			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	40	4	12.1	12.1	12.1
	45	6	18.2	18.2	30.3
	50	5	15.2	15.2	45.5
	55	2	6.1	6.1	51.5
	60	9	27.3	27.3	78.8
	65	1	3.0	3.0	81.8
	70	3	9.1	9.1	90.9
	75	2	6.1	6.1	97.0
	80	1	3.0	3.0	100.0
	Total	33	100.0	100.0	

The table 4.3 showed the frequency distribution of pre-test by considering on qualification of criteria students' scores:

- a. There are 4 students got score 40, it means that the students' writing achievement was poor and the students still needed much improvement.
- b. There are 22 students got 45-60, it means that the students' writing achievement was still fair, it also needed the improvement.
- c. There are 7 students got 65-80, it means the students' writing achievement was good.

After knowing the result of pre-test, the researcher gave the treatment in order to the students' writing achievement could be increased. Then, the researcher gave post-test to measure the different scores after conducting the treatment.

2. Computation Result of The Students' Score After Being Taught by Using Project Based Learning (Post-Test)

The post test was given by asked the students to write a recount text about unforgettable experience. The allocation time was 60 minutes. There were 33 students as the sample of the research. The post-test was done after being treatment by using Project Based Learning (PjBL). This test was intended to know the the students reading achievement after being taught using Project Based Learning (PjBL).

The statistics data of pre-test scores (Table 4.4) and frequency distribution of pre-test (Table 4.5) can be seen below:

Table 4.4 Statistics Data of Post-test

Statistics		
posttest		
N	Valid	33
	Missing	0
Mean		65.45
Median		65.00
Mode		70
Sum		2160

Based on the table 4.4 above, we can be seen there were 33 students followed the post-test. The mean of the students' score in post-test was 65.45. The median score was 65.00, it means that the middle score of post-test was 65.00 in 33 students. The mode of post-test score was 70, it means that the most frequently appeared score was 70. It is indicated that many students got good score. The total all scores of post-test was 2160.

Then, the frequency of the students' score was presented in the following table below.

Table 4.5 Frequency of Score in Post-test

		posttest			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	45	1	3.0	3.0	3.0
	50	4	12.1	12.1	15.2
	55	5	15.2	15.2	30.3
	60	5	15.2	15.2	45.5
	65	2	6.1	6.1	51.5
	70	7	21.2	21.2	72.7
	75	3	9.1	9.1	81.8
	80	3	9.1	9.1	90.9
	85	3	9.1	9.1	100.0
	Total	33	100.0	100.0	

From the table 4.5, it can be seen the frequency of post-test after being distributed showed based on the criteria students' score:

- a. There are 15 students got score 45-60, it means that the students' writing achievement in recount text was fair. There is no student got poor score.
- b. There are 15 students got score 65-80, it means that the students' writing achievement in recount text was good.
- c. There are 3 students got score 85, it means that the students' writing achievement in recount text was excellent.

3. Computation the Descriptive Statistics of Pre-test and Post-test

After that, the writer organized the range, minimum, maximum, mean, standard deviation, and variances of pretest and posttest scores of the sample which calculated respectively by using IBM SPSS Statistics 16.0. Table 4.6 represents the result:

Table 4.6 Descriptive Statistic for Pre-test and Post-test

Descriptive Statistics							
	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
pretest	33	40	40	80	55.61	11.233	126.184
posttest	33	40	45	85	65.45	11.549	133.381
Valid N (listwise)	33						

Table 4.4 showed that the minimum score in pre-test was 40, while in post-test was 45. Then, the maximum score in pre-test was 80, while in post-test was 85. The range of pre-test and post-test is the same, it was 40. The range of data was the distance between the highest score and the lowest score. The standard deviation of pre-test was 11.233 and post-test was 11.549. The standard deviation is to measure how much the variance of the sample. If the standard deviation is getting higher than the mean, it means the mean is not homogeny. While, if the standard deviation is getting smaller than the mean, it means that the mean was homogeny. The standard deviation of pre-test was $11.232 < 55.61$ and post-test was $11.549 < 65.45$. So, the sample of this research almost homogeny or has the same mean.

Based on the result of pre-test and post-test, it has different students' score before and after taught by using project based learning. The mean of post-test was

(55.61) higher than the mean of pre-test (65.45). It means, the use of project based learning has caused to the improvement of students' scores. So, it can be concluded that the value increased after being treatment using project based learning in writing recount text.

B. The Result of Normality and Homogeneity

1. The result of normality testing

Normality is conducted to determine whether the gotten data is normal distribution or not. The researcher used SPSS IBM 16.0 *One Sample Kolmogrov-Smirnov test* by the value of significance (α) =0.05. The result can be seen in the table below:

Table 4.7 Normality testing

One-Sample Kolmogorov-Smirnov Test		pretest	posttest
N		33	33
Normal Parameters ^a	Mean	55.61	65.45
	Std. Deviation	11.233	11.549
Most Extreme Differences	Absolute	.146	.138
	Positive	.146	.136
	Negative	-.137	-.138
Kolmogorov-Smirnov Z		.837	.792
Asymp. Sig. (2-tailed)		.485	.557

a. Test distribution is Normal.

Based on the table above was known that the significant value of pretest was 0.485, it was bigger than 0.05 ($0.485 > 0.05$), it means the distribution data of pre-test is normal. The significance value of post-

test was 0.557, it was bigger than 0.05 ($0.557 > 0.05$), it means the distribution data of post-test was normal. So, it can be interpreted that both of data (pre-test and post-test score) are in normal distribution.

2. The result of Homogeneity testing

Homogeneity testing is conducted to know whether the gotten data has a homogeneous variance or not. The researcher used Test of Homogeneity of variances with SPSS by the value of significance (α) = 0.05. And the result can be seen below:

Table 4.8 Homogeneity Testing

Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.704	7	24	.156

The data can be said has same variance or homogeneity if the value is more than 0.05. Based on the table above the significant value was 0.156. It means that sig/p value 0.156 was higher than 0.05 ($0.156 > 0.05$). Automatically, it can be said that the data has same variance or can be said homogeneity.

C. Data Analysis

To investigate whether Project based learning is effective towards students' achievement in writing recount text, the researcher analysed the result of pre-test and post-test of the students by using Paired Sample Test in IBM SPSS 16.0. Table 4.9 showed the result of calculation Paired Sample Correlation as follow:

Table 4.9 Paired Sample Correlation

	N	Correlation	Sig.
Pair 1 pretest & posttest	33	.883	.000

Based on the table 4.9 above, it showed the correlations between two scores of pre-test and post-test. The correlation scores of pre-test and post-test was 0.883 and significance value was 0.000. It shows that sig.value was smaller than 0.05 ($0.00 < 0.05$), it means that H_0 was rejected and H_a was accepted. So, it can be concluded that there was significant different score between pre-test and post-test score.

Table 4.10 showed the result of calculation Paired Sample Test as follow:

Table 4.10 Paired Sample T-Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 pretest - posttest	-9.848	5.518	.961	-11.805	-7.892	10.253	32	.000

Based on the table 4.10, output paired samples statistic showed that the result of compare analysis with using T-test. It shows the mean of pre-test and post-test is 9.848 which means that the difference mean between two scores was 9.848. The standard deviation is 5.518; it shows the variation of the data, the smaller value of it, the closer of data was. The standard error mean is 0.961, it

describes the accuracy as an estimate of the population mean, the smaller of standard error value is better the sample was because its represent the population enough. The lower difference is 11.805, while upper difference is 7.892. The result of T test= (10.253) with $df= 32$ and significant value=(0.000).

The way to test the null hypothesis can be rejected was by comparing sig.value with the standard level of significance (0.05). From the Table 4.10, sig.value is smaller than 0.05 ($0.00 < 0.05$). Thus, it was proven that the null hypothesis could be rejected.

D. Hypothesis Testing

The last step in analysing the data was testing the hypothesis of research. From the analysis above, the criteria to test the hypothesis of this research which is use in SPSS 16.0 were:

- a. If sig.value < 0.05 , the null hypothesis (H_0) is rejected, while the alternative hypothesis (H_a) is accepted.
- b. If sig.value > 0.05 , the null hypothesis (H_0) is accepted, while the alternative hypothesis (H_a) is rejected.

Based on the Table 4.10 above, the significance value of the research was 0.000, and significance level is 0.05. It means that the alternative hypothesis (H_a) was accepted and the null hypothesis (H_0) was rejected. It can be inferred that here was significant difference on students' writing recount text achievement before and after being taught by using Project Based Learning at the tenth grade of MA Ma'arif Udanawu. So, teaching writing recount text using project based learning was effective.

E. Discussion

The objective of this research is to find whether there is any significance different scores' of students' achievement in writing recount text or not. To prove it, the writer used writing test as instruments. The writer used three steps to get the data; pre-test, treatment, and post-test. To know the result of this research whether this strategy is effective or not, the researcher computed both of the tests into SPSS 16.0 version software.

As the requirement of hypothesis, if the significance value is smaller than significance level (0.05), it means that the alternative hypothesis (H_a) is accepted and the null hypothesis (H_o) is rejected. In fact, based on the table of *paired sample t-test*, the result shows that the number of significance value is 0.000 at significance level 0.05. It means there is a significance difference between pre-test and post-test. It can be said that there is any significance difference score on the students' writing achievement before and after being taught by using Project Based Learning.

From the finding, it can be seen that Project Based Learning can increase students' achievement in writing. The mean of pre-test 55.61 becomes 65.45 in post-test. It indicates that after using project based learning, the students' achievement in writing significantly increased proven by the progress of score from pre-test and post-test.

The test of writing recount text is scored by some aspect such as content, organization, language use, and mechanics. Whereas, in the pre-test the researcher found common mistakes on the content. The content of text mostly not related

with the topic and lack detail about the topic. In other aspect on the organization, some sentences still can not support the main idea. Besides that, mostly mistake that students did in language use especially in grammar; it was many mistakes in using simple past tense and difficulty in word order. And the other mistakes which ignored by students was on punctuation, capitalization, and errors of spelling.

After the students got the treatment, the result showed that there was improvement in content and language use. The students' writing text contents became larger and more understandable. The content of text mostly has relevant to the topic. The use of simple past tense was arrange in the right order even there are some students still having difficulty in there. Their vocabulary and mechanics were getting better. The finding was in line with previous study especially in the research which was conducted by Larasasti (2015) by using project based learning with poster as the project, she found that the students showed positive changes and improvement on their aspects of writing, such as the grammar, vocabulary, mechanics, fluency, and organization. The improvement justified based on gain score that students got before and after the implementation of her research. It showed that apply project based learning is effective in give students more opportunity to develop their writing skill, as explained in the research conducted by Marista (2016) that project based learning becomes one of the effective teaching learning models in teaching writing because the phase of it involved the students to construct their knowledge better. So, project based learning could assist the students explore their ideas easily.

Besides project based learning can increase the students score, group activities which the students had during the project enhanced their interaction and involvement in the learning activities. It means that through group activities, the students were able to share their knowledge, information, and experience each other when they finished the project. They were able to contribute to the project based on their expertise. As Mergandoller&Larmer (2004) state that project based learning reflects an explicit commitment to help students learn not just content and organization, but also the skills they need to make use of their knowledge and to gain future knowledge such as communication skill, group participation and leadership skills. It is in line with Fragoulis (2009:113) that states project based learning promotes social learning that enhances collaborative skills. It means the students allowed to work together and they were able to contribute to the project based on their expertise. The group which consisted of students with different levels of proficiency also encouraged them to help and learn each other. So, learning collaboratively helped the students to build a positive relationship among them.

Based on explanation above, the implication of this method can be an alternative method of teaching English especially to teach writing. Moreover, the students' participation during the teaching and learning also showed that the teacher must have various activities in order to get the students' attention towards the lesson. The variety of activities provides the students opportunity to practice.