

## CHAPTER IV

### RESEARCH FINDING AND DISCUSSION

This chapter presents four topics they are Research Finding, Hypothesis Testing, Normality and Homogeneity Testing, and Discussion.

#### A. Research Finding

In this study, the writer wants to know the effectiveness of self – assessment toward students’ writing achievement. The effectiveness can be seen from the significant different score of students reading comprehension before and after using self-assessment. The presentation of the data were answers based on the formulated of research problems in chapter 1. That are: To know how is the student’s score in writing achievement by using self – assessment at VIII Grade MtsN 3 Tulungagung.

Then, the presentation of data is as follows: The pretest was followed by 28 students of the experimental group. The researcher allocates 60 minutes for conducting pre-test. The pre-test was in the form of essay test, it was done before treatment process using self-assessment. This test was intended to know the basic competence of the students writing achievement before giving the treatment.

The post test was also followed by 28 students of the experimental group. The researcher allocates 60 minutes for conducting post-test. The post-test was same with pretest that is in the form of essay test. It was done after treatment process

using self-assessment This test was intended to know the result or the effect of treatment toward students writing achievement after giving the treatment.

**Table: 4.1 The students' score in pretest and posttest**

No	Respondents	Score	
		Pretest Score	Posttest Score
1	A S W	85	89
2	A T	90	95
3	A P I C	80	85
4	B A W	70	75
5	H R	90	96
6	I I H	85	95
7	K S	80	85
8	K A R	70	75
9	M A R	65	70
10	M J A D	85	90
11	M N H	90	98
12	M Z A F	90	98
13	M F R	89	98
14	M I H B	80	85
15	N A S	82	90
16	N F M	75	80
17	R R A	90	97
18	R R B R	90	96
19	R Z A	95	98
20	R H	85	94
21	S C N	70	80
22	S B F	72	80
23	W F A	90	96
24	Y H N	70	85
25	Y K S	84	90
26	Z M N	71	80
27	Z S A F	70	80
28	Z A M	80	85

The students' score above then were computed by using SPSS.

**Table 4.2 Descriptive Statistic of Pretest and Post Test**

		Statistics	
		pretest	Posttest
N	Valid	28	28
	Missing	0	0
Mean		81.18	88.04
Median		83.00 <sup>a</sup>	89.25 <sup>a</sup>
Mode		90	80 <sup>b</sup>
Std. Deviation		8.568	8.271
Skewness		-.325	-.418
Std. Error of Skewness		.441	.441
Sum		2273	2465

a. Calculated from grouped data.

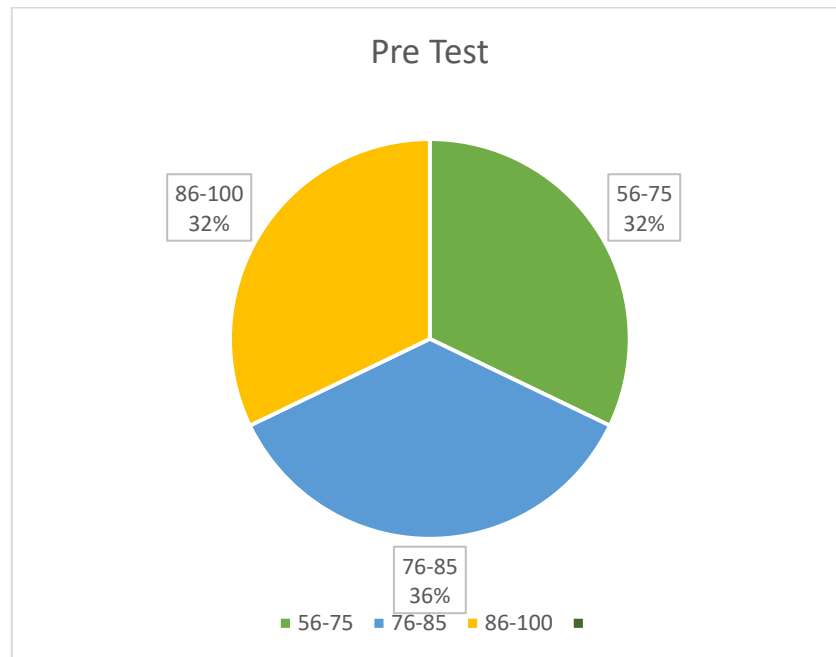
b. Multiple modes exist. The smallest value is shown

Based on the table 4.2 pretest, it can be seen that the students consist of 28 students. It shows that mean score 81.18, indicated that the averages of 28 student's score is 81.18. Based on the criteria of student's score 81.18 is classified average score. The median score is 83.00. The mode is simply that value which has the highest frequency. It means that the most frequent students' score is 90 indicated that many students got good score. Based on the table 4.2 posttest can be seen that the students consist of 28 students. It shows that mean score 88.04, which means that the average of 28 students are get score is 88.04, indicated that the students can mastery writing well. The median score is 89.25. In this case mode score is 80. So, there are many students got good score.

The students' pretest and posttest score of experimental group were distributed in the following table in order analyzing the students' writing achievement score before and after the treatment is given. Then, it was presented using frequency distribution in the following table:

**Table 4.3 Frequency of Pre Test**

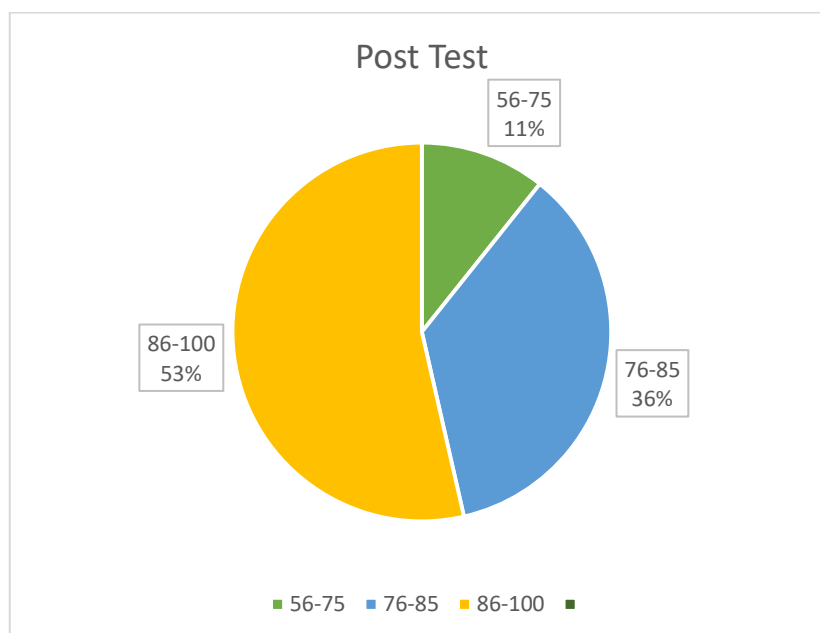
		Pretest			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	65	1	3.6	3.6	3.6
	70	5	17.9	17.9	21.4
	71	1	3.6	3.6	25.0
	72	1	3.6	3.6	28.6
	75	1	3.6	3.6	32.1
	80	4	14.3	14.3	46.4
	82	1	3.6	3.6	50.0
	84	1	3.6	3.6	53.6
	85	4	14.3	14.3	67.9
	89	1	3.6	3.6	71.4
	90	7	25.0	25.0	96.4
	95	1	3.6	3.6	100.0
Total		28	100.0	100.0	



From the table 4.3, The frequency of pretest after being distributed there are, 9 students getting score between 56 – 75 which means that the students writing achievement is at average 32%, 10 students getting score between 76 – 85 which means that on the students' writing achievement is good 36%, and 9 student getting score between 86 – 100 which means that on the students' writing achievement is excellent 32%.

**Table 4.4 Frequency of Post Test**

Posttest					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	70	1	3.6	3.6	3.6
	75	2	7.1	7.1	10.7
	80	5	17.9	17.9	28.6
	85	5	17.9	17.9	46.4
	89	1	3.6	3.6	50.0
	90	3	10.7	10.7	60.7
	94	1	3.6	3.6	64.3
	95	2	7.1	7.1	71.4
	96	3	10.7	10.7	82.1
	97	1	3.6	3.6	85.7
	98	4	14.3	14.3	100.0
Total		28	100.0	100.0	



From the table 4.4, The frequency of posttest after being distributed are 3 students getting score between 56 – 75 which means that the students writing achievement is at average 11%, 10 students getting score between 76 – 85 which means that on the students' writing achievement is good 36%, and 15 students getting score between 86 – 100 which means that on the students' writing achievement is classified as excellent score 53%.

From the presentation of the results of pretest and posttest, the students' score could be categorized into the following table of criteria students' score.

**Table 4.5 Table of Criteria Students' Score**

No.	Grade	Qualification	Range Score	Pretest		Posttest	
1.	A	Excellent	86 – 100	9	32%	15	53%
2.	B	Good	76 – 85	10	36%	10	36%
3.	C	Average	56 – 75	9	32%	3	11%
4.	D	Poor	46 – 55	0	0	0	0
5.	E	Very poor	0 – 45	0	0	0	0

Based on the table 4.5 above, there were 28 students from VIII-B as the sample of the research. The test was conducted by the researcher before and after being taught by using self-assessment in order to improve the student's ability in writing, the technique focused on the writing descriptive text. On pretest There are 9 students getting Excellent score or in percent is 32%, 10 students getting Good score or in percent is 36%, 9 students getting Average score or in percent is 32%. On posttest There are 15 students getting Excellent score or in percent is 53%, 10 students getting Good score or in percent is 36%, and 3 students getting Average score or in percent is 11%.

## **B. Hypothesis Testing**

Stating the null and alternative hypotheses

- a.  $H_0: \mu_1 \leq \mu_2$  or the mean of the students after being given treatment is smaller than or equal to the mean of the students before being given treatment.

Null Hypothesis ( $H_0$ ) that the mean of the students after being taught by using self assessment is smaller than or equal to the mean of the students before being taught by using self assessment.

- b.  $H_1: \mu_1 > \mu_2$  or the mean of the students after being given treatment is bigger than the mean of the students before being given treatment.

Alternative Hypothesis ( $H_a$ ) that the mean of the students after being taught by using self assessment is bigger than the mean of the students before being taught by using self assessment.

There are differences data presentations between before being taught by using self-assessment as a strategy and after being taught by using self-assessment as a strategy. The data present that the score after being taught by using self-assessment as a strategy better than higher before being taught by self-assessment as a strategy. The researcher uses statistical test using paired sample t-test stated by SPSS 16.00 to ensure the effectiveness of using self-assessment on the students' writing achievement. The result is as follows.



**Table 4.6 Paired Sample Statistics**

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	81.18	28	8.568	1.619
	posttest	88.04	28	8.271	1.563

Based on the table 4.6, the data presented are the performance scores of the members of one group which the students who were taught before and after using self- assessment in writing achievement. Output paired sample statistics shows that there are mean scores differences between pre-test and post-test. The mean score of pre-test is 81.18 and the mean score of post-test is 88.04. So, the mean score of post-test is higher than the mean score of pre-test. It means that the student's score increase after being taught using self- assessment in writing achievement. The number of subjects or respondents of each sample (N) is 28 students. Meanwhile, standard deviation of pre-test is (8.568) and standard deviation of post-test is (8.271). Mean standard error for pre-test is (1.619), while mean standard error for post-test is (1.563). So, we can conclude that the value increases after being taught using self- assessment in writing achievement.

**Table 4.7 Paired Samples Test**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pai pretest - r 1 posttest	-6.857	2.549	.482	-7.846	-5.869	-14.235	27	.000

Based on table 4.7, the Sig. (2-tailed) or the  $p$  value (two-tailed) is 0.000. Given that the present test is one-tailed test, so the Sig. (2-tailed) or the  $p$  value (0.000) is divided by two:  $0.000/2 = 0.000$ , and the significance level is 0.05. For interpretation of decision based on the result of probability achievement, that is:

- a. If the probability value (sig)  $> 0.05$  then the null hypothesis is not rejected.
- b. If the probability value (sig)  $< 0.05$  then the null hypothesis is rejected.

Since 0.000 is smaller than significance level ( $\alpha$ ) 5%, So the null hypothesis is rejected. In other word, the hypothesis saying that the mean after the treatment is smaller than or equal to the one before the treatment is rejected. It automatically accepts the alternative hypothesis saying that the mean after the treatment is bigger than the one before the treatment.

The conclusion is that self-assessment is effective for improving the student's writing achievement.

## C. Normality and Homogeneity Testing

### 1. Normality

Normality test uses to know whether that the data is in normal distribution or not. The main reason of conducting normality testing in a research is to know that the population or data involved in the research is in normal distribution. The normality test can be found by using *One-Sample Kolmogorov-Smirnov* formula and computed using SPSS 16.0. The distribution of data is normal if  $\text{Asymp.Sig} > 0.05$ . But if  $\text{Asymp.Sig} < 0.05$ , the distribution of data is not normal. The result of data on the table below:

**Table 4.8 One-Sample Kolmogorov-Smirnov Test**

		One-Sample Kolmogorov-Smirnov Test	
		pretest	posttest
N		28	28
Normal Parameters <sup>a</sup>	Mean	81.18	88.04
	Std. Deviation	8.568	8.271
Most Extreme Differences	Absolute	.144	.157
	Positive	.144	.120
	Negative	-.141	-.157
Kolmogorov-Smirnov Z		.760	.833
Asymp. Sig. (2-tailed)		.610	.491

a. Test distribution is Normal.

From the table 4.8 Show that Sig of pretest is  $0,610 > 0,05$  that the mean distribution of data is normal, and Sig of posttest is  $0,491 > 0,05$  that the mean distribution of data is normal

## 2. Homogeneity

Homogeneity testing is conducted to know whether the sample data has a homogeneous variance or not. The computation of homogeneity testing by using *SPSS Statistics 16.00* is *Test of homogeneity of Variance* by the value of significance = 0.05. There is also certainty in taking decision or homogeneity testing, as follow: The value of significance is higher than 0.05, it means that the data of sample has same variance. The result of the data on the table below:

**Table 4.9 Test of Homogeneity of Variances of pretest**

**Test of Homogeneity of Variances**

pretest

Levene Statistic	df1	df2	Sig.
1.951	6	17	.130

From the table 4.9 show that Sig is 0,130 it means that  $0,130 > 0.05$ , data of sample has same variance.

#### **D. Discussion**

As discussed of research method in chapter III, the teaching and learning process was divided into three steps. First step was preliminary study by which conducted a preliminary study to know the student's writing achievement by administering pre-test before being taught using self-assessment. The second was given treatment to the students; the treatment used in this study is self-assessment. The third was post-test which it was conducted to know the students' writing achievement after being taught self-assessment.

Students' writing achievement is low. It is proved by when they are taught without self-assessment. As we know from the research findings, the students which are taught self-assessment have lower score than using self-assessment. It is proved by the calculation of mean score on pre-test was 81.18 and post-test was 88.04.

As we know from the research findings, the students which after are taught using self-assessment have higher score than before are taught using self-assessment. It is proved by the calculation of mean score on post-test was 81.18 and pre-test was 88.04. So, the researcher concluded that this strategy is very useful to make the students more active and improve students' achievement in writing.

According to the mean score, the mean score of post-test is higher than the mean score of pre-test. It also means that teaching writing achievement using self-assessment is better than teaching writing taught without self-assessment.

Based on table 4.7, the Sig. (2-tailed) or the  $p$  value (two-tailed) is 0.00, and the significance level is 0.01. Since 0.00 is smaller than significance level ( $\alpha$ ) 1%. The null hypothesis is rejected. In other word, the hypothesis saying that the mean after the treatment is smaller than or equal to the one before the treatment is rejected. It automatically accepts the alternative hypothesis saying that the mean after the treatment is bigger than the one before the treatment.

The finding of this research stating that self – assessment is considered as an effective for the students' writing achievement, it also could be seen in the treatment process, the students are more interested when the researcher applied this technique. The students become conducive, active because they are taught to work together with their friends, give receive a motivation, suggestion from their friend in pair or other group, and students to be more patient.

Regarding on the result of data analysis above, it's also strongly with previous study as stating that self-assessment is considered as an effective for the students' writing achievement. From previous study with the title "The Effect Of Self Assessment On Students' Achievement In Writing Descriptive Paragraphs" by Andriani. This article was written based on an experimental research involving two variables, namely: self-assessment, and English writing achievement. This research aimed at investigating the effect of self-assessment technique on students' writing competency. Forty two students of tenth grade in SMA Negeri 1 Sawan in the academic year 2013/2014 were chosen as the sample through Cluster Random Sampling. Post-Test Only Control Group Design was implemented in this

experiment. The treatments were conducted 8 times, and after that the post test was administered in order to know the impact of the treatment toward the students' writing competency. From the data which were analyzed descriptively and inferentially, it was obtained that the Mean score of the experimental group was 84.35 and the Control group was 78.65 while the value of  $t_0$  was 4.932 and  $t_{table}$  was 2.009. The students who were assessed by using self-assessment technique got better result than the students who were assessed by using conventional assessment technique. This research discovered that there was significant difference in writing competency between the students who were assessed by using self assessment technique and students who were assessed by using conventional assessment technique. In this case result of the Mean score of the experimental group from previous study above was 84.35 and from this research is 88,04. Its mean that this research is higher than this previous study.

According to Nielsen (2000) one of strategies for teaching writing using self-assessment is "Invite students to participate in developing the criteria for self-assessment exercises. This process helps develop a shared understanding of good writing in the classroom". But, reality student not yet be able to participate in developing the criteria for self-assessment directly especially in exercises because using self-assessment firstly students must understand clearly what is self assessment, after that students have to given some examples. And after students study about self assessment clearly student can participate well and can helps students to shared understanding of good writing in the classroom with their friends especially in descriptive text.

From the explanation above, it can be conclude that using self-assessment is effective in this research. And the strategy above is accepted by the researcher, especially in understanding the writing achievement to the junior high school, because it can improve the students' writing achievement at the eight grade of MTsN 3 Tulungagung in academic year 2017/2018.