CHAPTER IV

RESEARCH FINDING AND DISCUSSION

This chapter aims to find out whether any differences between the use of clustering and traditional technique on students' English writing descriptive text at the eighth grade of MTs Raudlatul Ulum Besuki - Situbondo. This chapter presents the result of the research which is intended to answer the problem of the study. This chapter is divided into three subheadings: data presentation, hypothesis, and discussion. Moreover, this chapter analyzes the data taken from the pretest and posttest of both classes experimental and control in which the *t*-test was applied.

A. Data Presentation

In this study, the researcher acts as participant, proposes the technique and analyzes the data collected from the English teacher of MTs Raudlatul Ulum. Meanwhile, the process of the teaching of English writing especially in descriptive text and the process of scoring was held by the teacher itself.

This study used experiment research which consisted two subjects, the experimental and control group. The VIII C as the experimental group was taught by using clustering technique, while the control was VIII D which was taught by using traditional technique. Each of these classes consist of 30 students and were given pretest and posttest. "Someone or something special in your life" was

chosen as the topic of composing test. The topic was appropriate to test the eighth grades English writing ability of descriptive text.

In analyzing the data of pretest and posttest, the statistical formula was applied as a tool to help the calculation. The English writing descriptive score on test experimental and control group as quantitative data were analyzed by using *t*-test formula. It is done in order to investigate whether or not clustering improves students' English writing ability in descriptive text after holding treatments to experimental group. In addition, it is also aimed to investigate if there is any significant difference between two groups under comparison.

1. Experiment

In the research, MTs Raudlatul Ulum was chosen as the subject in conducting the research. Most students in this school are from rural areas that merely use Madura language as the first language (L1) and Bahasa Indonesia as the second language (L2) in their communication. This school was a representative of other rural schools which have this same problem. Whereas, students are encouraged mastering English as their compulsory subject.

In the research, the eighth grade was chosen as the subject because most of students had eagerness in learning English writing. In addition, they were in preparation stage for the ninth grade. Also, the students were in poor level in the ability of English composition. In the composition, most of students stated "What should I write?" or "where do I go next?" as their trouble in starting the composition.

Therefore, from the problem above, the English teacher needs creative techniques in the teaching English writing especially in descriptive text. And clustering technique was proposed as the alternative for pre-writing stage to help students generating and organizing their ideas in getting better composition.

a. Try out

The experiment process of this study conducted for four meetings in some steps. Before having pretest and posttest, try out was made first. It was aimed to find out its validity and reliability.

Try out test was the test was administered to another group of students at the same grade that did not belong to experimental and control. The try out itself was done to E class consisted 30 students. In the try out, the teacher administered "My Cute Pet" as the theme of writing.

The result of try out was calculated and analyzed in order to find out the validity and reliability of before using it as pretest and posttest. The data of try out were collected and compared by using correlation *t*-test of Sugiono. The result of try out presented in the following table.

Table 4.1

Rater	N	Score
X_1	30	2014
X_2	30	2390

Table 4.1: the result of try out

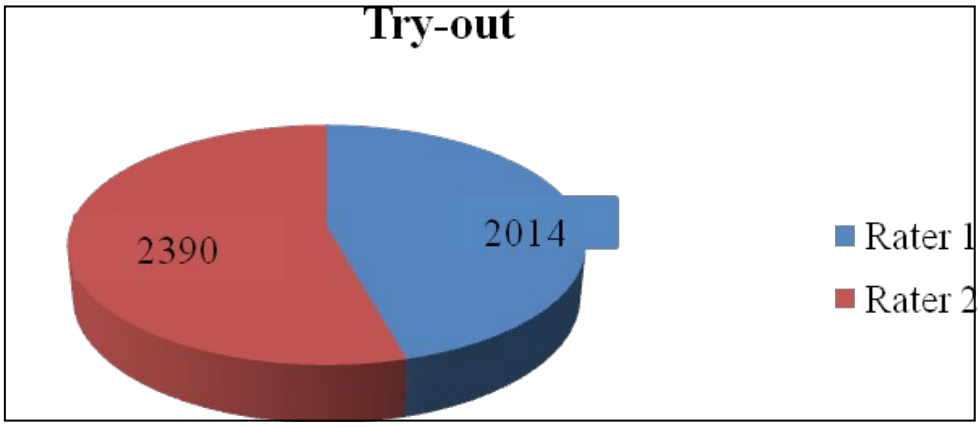

Chart 4.1: the result of try out

The table above informs that the application of try-out had different scores. The second rate is higher than first rate. Based on Brown's criteria (chapter 3), the final result of try out was reliable.[1]

b. Pretest

As the test has been proven to be a test, pre-test was administered to all eighth grades. C and D class were chosen for this research as experimental and control group. The students got "My Idol" theme of English writing and they described their idol in composition. The result of pretest can be seen in the following table.

[1] Onik Zakiyah, *The Use Of Numbered Head Together (NTH) Technique to Improve Students Reading Narative Text Ability,* (Unpublished S-1 Thesis. Surabaya: English Departement, IAIN Sunan Ampel, 2009), 37.

Table 4.2

Group	Scores	Mean
Experimental (VIII C)	2040	68
Control (VIII D)	2035	67.8

Table 4.2: the result of pre-test

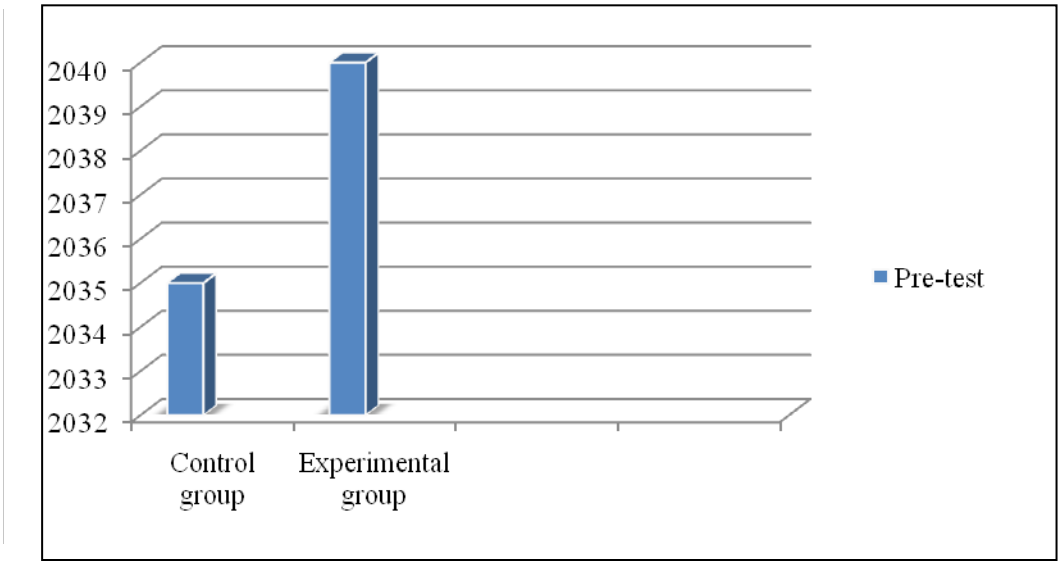

Chart 4.2: the result of pre-test scores

The table above informs that the result of pre-test in both classes had relatively the same mean scores. It means that these two classes were effective as the samples of the experiment in this research. After finding the classes which had similar or same mean score of pre-test, the teacher could continue the next steps, giving treatment and administering post-test.

The treatment was administered in two meetings. On July 21st, the teacher explained about descriptive text and the generic structure to both classes those experimental and control group. In the second meeting, the teacher gave feedback of descriptive text and introduced clustering technique used, to get better composition in experimental class. It was done on July 26th, 2011. In a short, the experimental class was taught by using clustering technique while the control class was taught as usual or traditional technique.

2. The Result of The Experiment

The result of this experiment research focused on post-test scores in both classes. The post-test conducted after administering treatment and held on July 28th, 2011. Both classes were given "Myself" as theme of writing. He ce, the result of the calculation was presented in the following table.

Table 4.3

Group	Scores	Mean
Experimental (VIII C)	2520	84
Control (VIII D)	2315	77.1

Table 4.3: the result of post-test

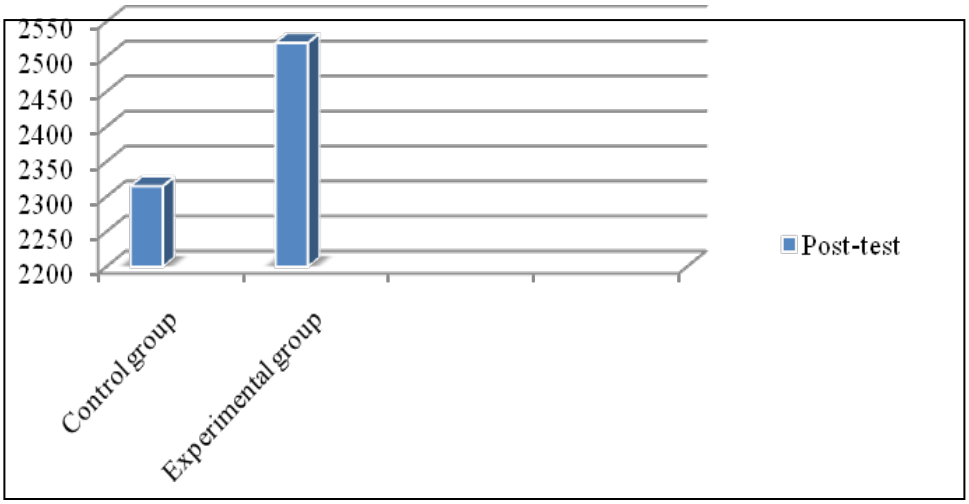

Chart 4.3: the result of post-test

From the tabulation above, it was found out that both classes had different scores and means of post-test. It means that the scores and means of experimental group were higher than the control group.

3. The Analysis

3.1. Try out

Try out aims to find out the reliability of test. The test could be used for this experiment research if the test was reliable. For try out, the data are presented in the following table.

Table 4.4

Try Out Scores

Students	(Rater) X_1	(Rater) X_2	X_1^2	X_2^2	$X_1 X_2$
1	72	78	5184	6084	5616
2	66	86	4356	7396	5676

3	56	76	3136	5776	4256
4	62	84	3844	7056	5208
5	72	84	5184	7056	6048
6	66	74	4356	5476	4884
7	72	76	5184	5776	5472
8	74	86	5476	7396	6364
9	72	76	5184	5776	5472
10	66	78	4356	6084	5148
11	76	86	5776	7396	6536
12	72	76	5184	5776	5472
13	62	80	3844	6400	4960
14	66	80	4356	6400	5280
15	52	76	2704	5776	3952
16	68	78	4624	6084	5304
17	66	80	4356	6400	5280
18	66	78	4356	6084	5148
19	72	86	5184	7396	6192
20	68	82	4624	6724	5576
12	66	80	4356	6400	5280
22	62	74	3844	5476	4588
23	72	76	5184	5776	5472
24	66	82	4356	6724	5412
25	66	80	4356	6400	5280

26	72	84	5184	7056	6048
27	56	76	3136	5776	4256
28	78	80	6084	6400	6240
29	58	76	3364	5776	4408
30	72	82	5184	6724	5904
∑	2014	2390	136316	190820	160732

Then, collecting the data of try-out was conducted by using correlation *t*-test of Sugiono[2] as the following calculation.

$$r_i = \frac{n \sum X_i Y_i - (\sum X_i)(\sum Y_i)}{\sqrt{\left[n \sum X_i^2 - (\sum X_i)^2 \right]\left[n \sum Y_i^2 - (\sum Y_i)^2 \right]}}$$

$$r_i = \frac{30\,(160732) - (2014)(2390)}{\sqrt{[30(136316) - (2014)^2][30\,(190820) - (2390)^2]}}$$

$$= \frac{4821960 - 4813460}{\sqrt{[4089480 - 4056196][5724600 - 5712100]}}$$

$$= \frac{8500}{\sqrt{33284 - 12500}}$$

$$= 58{,}959 \quad (positive\ high\ relationship)$$

From the analysis above, the result t_{value} was 58.959 with t_{table} was 0.361 (0.05). It means that t_{value} was higher than t_{table}. It could be

[2] Prof. Dr. Sugiono, *Statistika Untuk Penelitian*, (Bandung: Alfabeta, 2007), 357.

concluded that the test was reliable. Thus, it could be used for the instrument of this research.

3.2. Pre-test

The pre-test scores in both classes those experimental and control group had relative same scores. After the application of tryout, the teacher of MTs Raudlatul Ulum administered pre-test to both classes those experimental and control group. For pre-test scores in both classes, the data can be seen below.

Table 4.5

Pre-test Scores

Students	**Experimental** (X1)	**Control** (X2)	**D = X-Y** (X1)	**D = X-Y** (X2)
1	60	70	-25	-10
2	70	75	-20	-5
3	75	65	-10	-5
4	65	65	-20	-10
5	70	60	-15	-15
6	80	80	-5	-10
7	70	65	-10	-5
8	65	75	-15	-5
9	60	80	-20	-5

10	60	65	-25	-10
11	75	65	-10	-5
12	60	60	-25	-15
13	70	65	-15	-15
14	75	75	-10	-10
15	60	80	-20	-10
16	70	60	-20	-20
17	80	60	-5	-15
18	70	60	-15	-10
19	75	60	-10	-15
20	60	65	-25	-5
21	65	70	-15	-10
22	70	65	-10	-5
23	75	60	-10	-15
24	60	65	-25	-5
25	60	75	-20	-5
26	65	70	-20	-15
27	70	70	-15	-10
28	75	65	-10	-5
29	60	70	-30	-5
30	70	70	-5	-5
∑	2040	2030	∑D = -480	∑ D = -280

Then the data was calculated to determine mean of pretest in both classes experimental and control. The calculation is presented below.

$$M_{x1} = \frac{\sum x}{N} \qquad M_{x2} = \frac{\sum x}{N}$$

$$= \frac{2040}{30} \qquad = \frac{2035}{30}$$

$$= 68 \qquad = 67{,}8$$

3.3. Post-test

After the treatment, the post-test was administered to both classes in the same time. The research used *t*- test formula to calculate the post-test and the result can be seen in the following table.

Table 4.6

Post-test Scores

Students	**Experimental** (Y_1)	**Control** (Y_2)	**D^2= (X-Y)^2** (Y_1)	**D^2= (X-Y)^2** (Y_2)
1	85	80	625	100
2	90	80	400	25
3	85	70	100	25
4	85	75	400	100
5	85	75	225	225
6	85	90	25	100

7	80	70	100	25
8	80	80	225	25
9	80	85	400	25
10	85	75	625	100
11	85	70	100	25
12	85	75	625	225
13	85	80	225	225
14	85	85	100	100
15	80	90	400	100
16	90	80	400	400
17	85	75	25	225
18	85	70	225	100
19	85	75	100	225
20	85	70	625	25
21	80	80	225	100
22	80	70	100	25
23	85	75	100	225
24	85	70	625	25
25	80	80	400	25
26	85	85	400	225
27	85	80	225	100
28	85	70	100	25

29	90	75	900	25
30	75	80	25	25
∑	$\sum y_1 = 2520$	$\sum y_2 = 2315$	$\sum D^2 = 9050$	$\sum D^2 = 3200$

Then, determining mean of posttest score was done in both experimental and control classes.

$$M_{y1} = \frac{\sum y}{N} \qquad M_{y2} = \frac{\sum y}{N}$$

$$= \frac{2520}{30} \qquad = \frac{2315}{30}$$

$$= 84 \qquad = 77{,}1$$

After finding the score above in both classes, the *t*-test used to test the result of posttest between experimental and control group, the following calculation was used.

$$t_o = \frac{M_{D1} - M_{D2}}{SE_{M\,D1} - SE_{M\,D2}}$$

$$= \frac{16 - 0{,}08}{1{,}25 - 0{,}88}$$

$$= \frac{15,92}{0,37}$$

$$= 43,02$$

From the calculation above, it was found out that t_{value} was 43.02 with 58 degree of freedom on the table 0.05. It means that the t_{value} was higher than the t_{table} and the difference was significant. It can be concluded that the comparison of the experimental and control group had significance difference scores and means. It means, the clustering technique was more effective than traditional technique.

B. Hypothesis

Hypothesis testing was done to know whether the null hypothesis had to be accepted or rejected. If there was a high probability in rejecting the null hypothesis, or if the null hypothesis was untrue, then the alternative hypothesis could be accepted. In this study, the null hypothesis (Ho) which states that there is positive significant difference between the teaching writing using clustering and without using clustering. Meanwhile, the alternative hypothesis (Ha) states that there is no positive significant difference between the teaching writing using clustering and without using clustering

Then to test the hypothesis, the t-test formula, df (degree of freedom) and the standard of significance (0, 05 or 5%) were used. The last the obtained *t*-value and *t*-table were compared. It is found that the result of t-value 43.02 was

higher than the *t*-table with the level of significance of 5% and 58 degree of freedom.

This result shows that the difference of English writing ability in descriptive text between the experimental and control group is significant. Therefore, the null hypothesis (Ho) which states that "there is no a significant difference in the writing ability between the students who are taught the descriptive text by using *clustering* technique and those who are taught without using *clustering* technique" was rejected.

C. Discussion

This section is intended to analyze the results or research findings based on the theories related to the study. All the data gathered from the research instrument which will give information as the basis of the research finding. Then, the result was calculated by using *t*-test.

Two tests had been administered to both experimental and control group in order to find out students' ability in writing English descriptive text by using clustering technique. Based on the previous explanation about the results of tests, the calculation shows that in the pretest, the similar mean and scores were taken for the sample of the research those C and D class. The score of C class was 2040 with mean 68. Meanwhile, the score of D class was 2035 with mean 67.8. In the similar scores and means, both classes were effective being the sample of the research.

Meanwhile, the result of posttest that determined the improvement of students English writing especially in descriptive text. Based on the calculation, both classes experimental and control had different result. The posttest score was higher than the pretest both in scores and means. Thus, the test was effective to be an alternative way in improving students' English writing ability.

After finding out all of the statistical calculation, the alternative hypothesis was accepted and the null hypothesis was rejected. It means that the application of clustering technique was more effective than traditional technique.

By the application of clustering, students were motivated being an active in mastering English well by improving their composition. Therefore, the students found that making clustering was interesting in learning English writing of descriptive text. It also enables students to develop their own learning effort.[3] In line with Oshima and Hogue who states that clustering is a prewriting activity that help to produce ideas and organize into good paragraph.[4]

Furthermore, the instrument or clustering could help the teacher of MTs Raudlatul Ulum in teaching of English writing. Writing exercises and other written activities help the students to acquire the vocabulary and the grammar of the lesson. As stated by Cross that students can and do internalize vocabulary and

[3] J. Michael O'Malley and Pierce, Lorrainne Valdez, *Authentic Assessment for English Language Learners Practical Approaches for Teacher.* (Ontario: longman, 1996), 38

[4] Alice Oshima and Ann Hogue, *Introduction to Academic Writing,*(New York: Addison Wesley Longman, 1997), 48.

structures through writing.[5] Hence, the teacher needs creative techniques to stimulate students' spirit in teaching of English writing.

[5] David Cross, *A Practical Handbook of Language Teaching,* (UK: Prentice Hall, 1992), 268