CHAPTER IV

RESEARCH FINDING AND DISCUSSION

This chapter presents the results of the research to answer the problem and to test the hypothesis proposed in Chapter I. Before presenting the data, this part is initiated by presenting the teaching process applying the Think-Talk-Write (TTW) strategy in writing class. Although the description of the process of teaching employing Think-Talk-Write (TTW) strategy is not the data of the study, it is worth to be presented to give a short description on how the Think-Talk-Write (TTW) Strategy was implemented in the classroom.

A. The Process of Teaching Descriptive Text Applying TTW

In its practice the treatment of using Think-Talk-Write (TTW) to teach descriptive text ability.

1. The teacher explained descriptive text about person, things, or place with the generic structure, languages features and Example of descriptive text.

2. The teacher divided a classroom into several groups consist 6 students.

3. The Teacher gave students a question to make the example of descriptive text relating to things, person, or place.

4. The teacher gave each individual in the group time to describe about the question that the groups choose with their idea in the small note. (Think). This activity was intended for students to be active in thinking and they could be share their idea with their language in the small note.

5. The teacher gave students time to discuss with friends in groups discussing the contents of the notes they made (Talk). In this activity they used their own language and words to convey their ideas in discussions.

6. After that the teacher gave students time to write the results in the paper with their own language into a descriptive paragraph appropiate with generic structure and languages features of descriptive text. (Write). This activity was intended for students to be active in writing and improve their writing with their own language and their own idea appropiate with the contexts.

7. The teacher gave students time to present their result in the front of the class. The final activity of learning is to make reflections and conclusions on the material.

During the learning activitis, the teacher acts as a moderator and if necessary can provide direction, guidance, and encouragement for the students.

B. Research Finding

1. Description of the Data

This part presents the obtained data taken from two tests of both experimental class and control class. The tests result from both of classes consisted of pre-test which was administered at the beginning of the research and post-test was administered after finishing treatment.

a. Data Results of Experimental Class

In the experimental class, the data of pre-test were resulted from 29 students with the mean score was 69.41, the highest score obtained was 77 and the lowest score was 62. Meanwhile, the mean taken from the post-test result was 81.52 with 90 as the highest score and 69 as the lowest score. Therefore, the data showed that the post-test result was higher than the pre-test with the difference of the gained-scores 12.11. The results can be seen in Table 4.1 below. The data presented in the Table 4.1 represented the score of individual score.

Table 4.1:Students' Scores of Experimental Class

Students' ID	Experimental Class		Gained Score
	Pre-Test	Post-Test	
A1	75	88	13
A2	77	80	3
A3	70	75	5
A4	76	89	13
A5	69	75	6
A6	75	79	4
A7	71	79	8
A8	69	73	4
A9	68	75	7
A10	71	89	18
A11	68	79	11
A12	65	78	13
A13	65	78	13
A14	70	74	4

Students' ID	Experimental Class		Gained
	Pre-Test	**Post-Test**	**Score**
A15	65	85	20
A16	67	79	12
A17	63	82	19
A18	72	82	10
A19	70	85	15
A20	71	86	15
A21	73	90	17
A22	69	82	13
A23	74	89	15
A24	72	89	17
A25	69	81	12
A26	63	79	16
A27	65	69	4
A28	69	88	19
A29	62	87	25
$\sum$	2013	2364	351
Mean	**69.41**	**81.52**	**12.11**
Maximum Score	**77**	**90**	**13**
Minimum Score	**62**	**69**	**7**

b. Data Results of Control Class

Unlike in the experimental class, in the control class the obtained higher mean scores in pre-test was 67.60 from 35 students. The highest score was 77, and the lowest score was 55. Meanwhile, the mean score in the control class resulted from post-test result was 77.14 with the higher score was 89 and the lowest score was 65. The

student's individual score of the control class are showen in the following table.

Table 4.2: Students' Score of Control Class

Students' ID	Control Class		Gained Score
	Pre-Test	Post-Test	
A1	75	87	12
A2	70	76	6
A3	71	75	4
A4	65	71	6
A5	65	72	7
A6	55	65	10
A7	71	84	13
A8	55	68	13
A9	68	74	6
A10	65	77	12
A11	71	75	4
A12	60	69	9
A13	63	69	6
A14	64	73	9
A15	69	75	6
A16	71	80	9
A17	70	79	9
A18	68	75	7
A19	55	65	10
A20	56	67	11
A21	70	85	15
A22	58	67	9
A23	75	82	7
A24	74	88	14
A25	75	85	10
A26	74	86	12

Students' ID	Control Class		Gained Score
	Pre-Test	Post-Test	
A27	69	79	10
A28	73	82	9
A29	71	89	18
A30	66	79	13
A31	71	81	10
A32	65	77	12
A33	66	69	3
A34	77	88	11
A35	75	87	12
Σ	2366	2700	334
Mean	**67.60**	**77.14**	**9.54**
Maximum Score	**77**	**89**	**12**
Minimum Score	**55**	**65**	**10**

c. Overview of the Data Results

As the data results had been described in descriptive statistics, it was then compared to get the overview of the scores between the classes before and after being given the treatment and to see the progress achieved in each class. It can be seen in the following figures:
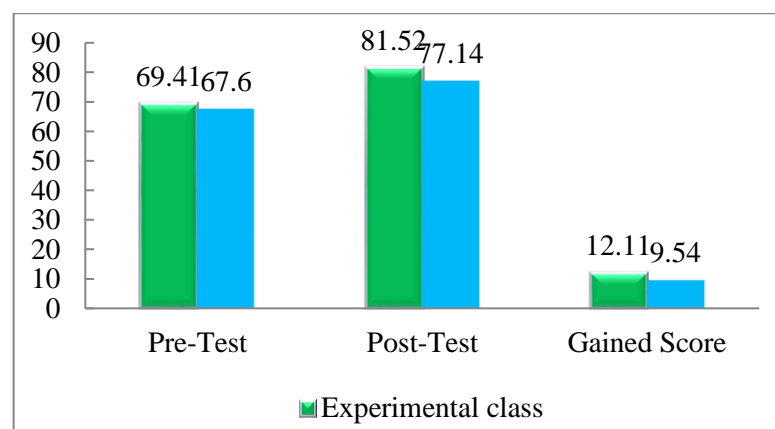

Figure 4.1 Overview of Both Classes Scores Comparison

Figure 4.1 above illustrates that the pre-test means scores of the experimental class is 69.41 which is a little higher than the control class that is 67.60. Tthis implies that students in the experimental class had almost the same writing ability with the control class. Meanwhile, the figure also shows a chart of the post-test mean scores. Even both classes showed improvement in the post-test result, but the mean indicated that students of experimental class achieved higher scores in post-test compared to the control class.

It is also illustrated by the gained-scores of experimental class indicating the difference of increasing point that was higher than the control class. The difference mean of the gained-scores in experimental class was 12.11 while in control class was 9,54 points.

2. Data Analysis

In the data analysis part, the collected scores of pre-test and post-test from the two classes are analyzed statistically by using T-test. the result of T-test is what is called the inferential statistics. However, prior to calculating the result by T-test, the writer had to determine whether the data collected are distributed normally or not and to determine if the research samples variances are homogeneous. In final to T-test result, the researcher also conducted an effect size testing in order to determine the intensity of the effectiveness of Think-Talk-Write startegy in this research. Therefore normality test and homogeneity test are conducted before the data is futher analyzed by T-test and effect size. All forms of data

analyzing and calculation are done by using SPSS 16.0 for windows, except the effect size testing is calculated manually with the help of supporting data obtained from the T-test.

a. Normality Test

To calculate the normality test, the researcher used *Kolmogorov-Smirnov* as presented in table 4.3 for experimental class and table 4.4 for control class. In table 4.3, it shows that the normality significance of pre-test and post-test in the experimental class is 0.200. both of the significance results in pre-test and post-test proved that the data are normally distributed because the significance is above $\alpha = 0.05$ (0.200 > 0.05). The results are showen in the following table.

Table 4.3: Normality Test Result of Pre-Test and Post-Test in Experimental Class

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
PRETEST	.114	29	.200[*]	.971	29	.591
POSTTEST	.117	29	.200[*]	.944	29	.131

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Meanwhile, Table 4.4 shows that the normality significance of pre-test was 0.108 and 0.200 of post-test in control class. The results also proved that the post-test data were distributed normally because the significance were above $\alpha = 0.05$ (0.108 > 0.05 ; 0.200 > 0.05). The results are shown in the following table.

**Table 4.4: Normality Test Result of Pre-Test
and Post-Test in Control Class**

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
PRETEST	.135	35	.108	.917	35	.012
POSTTEST	.097	35	.200[*]	.953	35	.142

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

b. Homogeneity Test

To calculate the homogeneity test, the writer refered to *Levene Statistic* test. The homogeneity test result in post-test of both classes showed 0.145 as the significance of the data, which is higher than $\alpha = 0.05$ (0.145 > 0.05). Therefore, based on the post-test results, both of the classes have homogeneous variance. (see Table 4.5).

Table 4.5: Homogeneity Test Results of Post-Test

Test of Homogeneity of Variances

POSTTEST

Levene Statistic	df1	df2	Sig.
2.175	1	62	.145

c. Statatistical Hypothesis Testing

As the collected data have been proved its normality and homogeneity, the data were further analyzed to examine the research hypothesis by using T-test. After examining the hypothesis, the result of the T-Test gave answer to the research question on whether or not

Think-Talk-Write strategy was effective in this research. The T-test result was also then supported by the calculation of the effect size.

In performing the T-test calculation, the scores of post-test and gained score of both experimental class and control class were being compared. The results are presented in the following table:

1) Post-test Result

In Table 4.6, it shows the result of T-test analysis of post-test score in experimental and control group after the experimental group was given treatment with Think-Talk-Write strategy and the control group with lecturing and group discussion. The *equal variance assumed* is used to read the result and refer to a significance level of *sig α* = 0.05 (5%).

Based on the table, the independent sample test result p-value or *sig (2-tailed)* = 0.011 (1.1%) From the result, it can be concluded that the null hypothesis is rejected and the alternative hypothesis is accepted because the p-value (0.011) is less than *sig α* = 0.05 (5%). It also means that there is a statistical significance in the experimental class.

Table 4.6
T-Test Result of post-test Score

Independent Samples Test

		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)	Lower	Upper
POSTTEST	Equal variances assumed	2.175	.145	2.629	62	.011	1.049	7.700
	Equal variances not assumed			2.687	61.893	.009	1.120	7.628

2) Gained Score Result

In addition to T-test analysis of pre-test and post-test score, the gained scores of pre-test and post-test result were also analyzed as shown in Table 4.7. Based on the table, the independent sample test resulted p-value or *sig (2-tailed)* = 0.030 (3%). It can be concluded that the null hypothesis was rejected and the alternative hypothesis iwas accepted because the p-value (0.030) was less than *sig α* = 0.05 (5%). It also means that there was a statiscal significance in the experimental class gained score.

Table 4.7. T-test Result of Gained Score

Independent Samples Test

		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)	Lower	Upper
POSTTEST	Equal variances assumed	8.892	.004	2.216	62	.030	.250	4.871
	Equal variances not assumed			2..113	43.020	.040	.117	5.004

d. Effect Size

In final, since the T-test resul proved statistical significance in the post-test and gained scores results, the writer analyzed the effect size of the T-test result with the intend to find out the level of significance refers to Cohen's *d* effect size calculation. In this calculation, the means and the standard deviations of post-test of both classes (experimental and control) are required which have been obtained earlier in T-test result from the *Group Statistic* table. The effect size result is recapitulated in Table 4.8.

Table 4.8. The Effect Size Result

Statistic of Post-test	Experimental Class	Control Class
Mean	81.52	77.14
Std.Deviation	5.755	7.265
Effect Size	0.67*	

*the result is obtained by manual calculation using Cohen's *d* formula

Formulation:

(1). $\sigma \text{ pooled} = \dfrac{\text{Std. Deviation 1} + \text{Std. Deviation 2}}{2}$

(2). $d = \dfrac{\text{Mean of group 1} - \text{Mean of group 2}}{\sigma \text{ pooled}}$

Calculation:

(1). $\sigma \text{ pooled} = \dfrac{5.755 + 7.265}{2} = 6.51$

(2). $d = \dfrac{81.52 - 77.14}{6.51} = \mathbf{0.67}$

In the Table 4.8, it shows that the effect size or the level of significance effect is 0.67. It incicated that there is a moderate effect of Think-Talk-Write stategy on students' writing ability performed in this research. This is on the basis of Cohen's *d* effect size criteria, in which 0.67 ranges in moderate effect scale that is only two points close to the strong effect scale.

C. Discussion

From the result of research finding, showed that Think-Talk-Write (TTW) was effective used in teaching writing descriptive text, because there was significant different result between teaching writing descriptive text by

using Think-Talk-Write (TTW) and using Conventional learning method. The research finding was also consistent with the previous studies done by Gofisnovega (UNESA 2015), Kamilia (University of Islam Malang 2019), Ambarsari (university of Padang 2018) that revealed Think-Talk-Write strategy as one of writing strategy that is effective in improving students' writing ability.

Based on data analysis, the reseacher know that the independent sample test result p-value is less than *sig α* (0.011 < 0.05). It means that the alternative hyphotesis (H_a) is accepted and null hyphothesis (H_o) is rejected. Besides, the effect size was also calculated to acknowledge the level of effectiveness by using the Cohens' *d* formula. The result of the effect size value was 0.67, which indicated that Think-Talk-Write startegy was moderately effective.

Thus, the finding mean that taught by Think-Talk-Write (TTW) given significant effect on the students' writing achievement was effective to improve students' writing descriptive text ability. It is strengthened by Yamin and Ansari (2008:84) stated that Think-Talk-Write (TTW) is one of learning strategy which is purpose to improve students" understanding ability. Using Think-Talk-Write (TTW) strategy in teaching writing is an alternative to make the students more enthusiasm, interested and make the students to be active in teaching and learning process, because in this activity the students can expressing their idea, talking and sharing with others. As theory stated by Huinker and Laughlin (1996) that Think-Talk-Write (TTW) is a strategy

which can train the students" ability to think and learning to communicate (sharing).

Based on the research method, the teaching learning process was divided into three steps. First steps is giving pre-test for the both of class in experimental class and control class to know on the students' writing ability before taught by Think-Talk-Write (TTW) strategy. Second step is giving treatment in experimental class by applying Think-Talk-Write (TTW) in writing desvriptive text. The third step is giving post-test for the both of class (experimental and control) to know on the students' writing ability after they got treatment.

Based on the result of test from teaching writing by using Think-Talk-Write (TTW) strategy, its make the students easily to write. Because before the students starting to write, the students can dialogue with themselve, then the students can talking and sharing ideas with one another. As the theory stated by Huinker and Laughlin (1996:82) in Ratna and Giska (2015:2) that Think-Talk-Write (TTW) strategy builds in time for thought and reflection and for the organization of ideas and the testing of those ideas before students are expected to write. The flow of communication progresses from student engaging in thought or reflective dialogue with themselves, to talking and sharing ideas with one another, to writing. In this activity, before the students discuss about descriptive text, the researcher divided the students into group consists of 6 students. Its be done to make the teaching learning process more effective. It is strengthened by Huinker and Laughlin (1996:82) that this

strategy to be effective when students working in heterogeneous group to two until six students, are asked to explain, summarize, or reflect. From the results of the statistical computation using independent sample T-test, show that the score of writing before being taught by Think-Talk-Write (TTW) strategy is less than after being taught by Think-Talk-Write (TTW) strategy. In the pre-test of experimental class, the mean score is 69.41 and 67.60 for control class which shows only a slight difference of 1,81 points. While the mean score in posttest of experimental class is 81.52 and 77.14 for control class that only gained 4,38. Although it shows a slight difference between two means, the result shows that post-test of experimental class was better than Post-test in control class. From the result above, it is can conclude that the students get good achievement in writing after taught by Think-Talk-Write (TTW) strategy.

From the explanation above, it can be conclude that in this research Think-Talk-Write (TTW) strategy is effective to improve students' writing descriptive text ability at MAN 1 Tulungagung.