

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

This chapter presents and analyzes the data collected from the experiment that used response journal writing to enhance the writing skill of the tenth graders of SMA Muhammadiyah 1 Babat. The data obtained in this study were the quantitative data in form of test scores of students in the experimental and the control group. The scores were calculated to find the mean of both groups. The means were then compared to inform the conclusion of the research findings. The t-test formula was used in the analysis. The presentation of the data and the discussion of the finding in this chapter are divided into three subheadings: data description, analysis, and discussion.

A. Data Description

This research was aimed to find out whether response journal writing strategy is more effective than traditional strategy to enhance students' writing skill. The data were collected from the test scores of the students. The test was given after the treatment was given to the experimental group. The results of final tests of both groups were presented below.

1. The Test Result of the Experimental and Control Groups

There were 52 students who attended the test, comprising of 26 students from the experimental group and 26 students from the control

group. The scores of the test were collected from the assessment of students' writing based on five components: content (C), organization (O), vocabulary (V), grammar (G), and mechanic (M). The EFL Composition Assessment Rubric developed by Reima Al-Jarf was used as a reference in scoring (see Appendix I).⁶⁰ The results of final test of both groups are presented in tables 4.1 and 4.3 below.

a. The Result of The Final Test of Experimental Group

The result of the final test of the experimental group is shown in the following Table 4.1.

Table 4.1
The Result of Final Test of the Experimental Group

Component	The Result of Experimental Group						Total Score (conversion)
	C	O	V	G	M	Σ	
Total	67	65	64	53	53	302	2072
Mean	2.57	2.5	2.46	2.03	2.03	11.59	79.69

Based on the table above, it can be concluded that the scores of test in the experimental group got some improvement. The mean of test of the experimental group is 79.69. This mean score was calculated from the total of scores from the five components divided by the number of students, i.e. 2072: 26. It means that the mean score of the experimental group increased 8.08 point, from 71.69 in the test before

⁶⁰ Asian EFL Journal. Professional Teaching Articles. Vol. 51 April 2011. www.asian-efl-journal.com/PTA/April-2011-Al-Jarf.pdf (Accessed on 4 July 2013)

treatment to 79.69 in the final test after treatment. The students' mean score of content is 2.57. It means that the content of the paragraph of students' writing is close to excellent. The mean of organizing their ideas in writing is 2.5. It means that the students' ability in organizing the ideas is above average. The mean of vocabulary is 2.46. It indicates that the students' vocabulary is above average. In terms of grammar, the mean is 2.03. The students' grammar understanding is average. In mechanics, the mean is the same as in grammar. It is 2.03 or average.

Furthermore, the scores of the final test of the experimental group were grouped from the highest to the lowest score in order to make it simple and easy to understand. The scores of all students in the experimental group can be seen in Appendix II. And the grouping of the final score of the experimental group is presented in table 4.2 below.

Table 4.2
The Grouping of the Score of Final Test of the Experimental Group

Grade	Interval	The Number of Students
A	100 – 90	1
B	89 – 79	13
C	78 – 68	11
D	67 – 57	1
E	56 – 46	0
Total		26

Table 4.2 above shows that the highest score is in the range of 100-90 which is in grade A. There is one student with the highest score.

Thirteen students in this group are in the range of 89-79 or categorized in grade B. And most of the students in this group are in this grade, while others are in grade C which is in the range of 78-68. There is one student in the range 67-57 which is in grade D.

b. The Result of the Final Test of Control Group

The result of final test of the control group is shown in the following table 4.3.

Table 4.3
The Result of Final Test of Control Group

Component	The Result of Control Group						Total Score (conversion)
	C	O	V	G	M	Σ	
Total	51	63	60	52	54	280	1940
Mean	1.96	2.42	2.3	2	2.07	10.76	74.61

The table above shows that the result of test of control group has not improved significantly as in the experimental group. The mean of test of the experimental group is 74.61. The difference between the test before treatment and after treatment is 3.92 from 70.69 to 74.61. The students' mean of content is 1.96. It means that the content of the paragraph of students' writing is close to average. The mean of organizing their ideas in writing is 2.42. It shows that their ability in organizing the ideas is above average. The mean of vocabulary is 2.3. It

indicates that the students' vocabulary is above average. In terms of grammar, the mean is 2. It shows that the students' grammar understanding is average. In mechanics, the mean is 2.07 or average.

Furthermore, the scores of the final test of the control group were grouped from the highest to the lowest score in order to make it simple and easy to understand. The scores of all students in the control group can be seen in Appendix III. And the grouping of the final score of the control group is presented in table 4.4 below.

Table 4.4
The Grouping of the Score of Final Test of the Control Group

Grade	Interval	The Number of Students
A	100 – 90	0
B	89 – 79	6
C	78 – 68	18
D	67 – 57	2
E	56 – 46	0
Total		26

Table 4.4 above shows that the highest score in this group is in the range of 89-79 which is in grade B. There are six students with the highest score. Eighteen students in this control group are in the range of 78-68 or categorized in grade C. And most of the students in this group are in this grade, while others are in grade D which is in the range of 67-57 or the lowest score. There are two students in that grade.

2. Analysis of the Data

The purpose of the analysis the data is to know whether response journal writing strategy is more effective to enhance students' writing skill than the traditional strategy. There are two kinds of analysis in this research: the comparison of means and t-test.

a. The Comparison of Mean Scores

The purpose of comparing mean is to know whether the students who were taught using response journal writing strategy got higher score than those who were not. The result of this comparison is used as the basis to answer the research question. Table 4.5 below presents the comparison of mean scores of both groups.

Table 4.5
The Comparison of Mean Score of Both Groups

	Experimental Group	Control Group
Content	2.57	1.96
Organization	2.5	2.42
Vocabulary	2.46	2.3
Grammar	2.03	2
Mechanics	2.03	2.07
Total Score	2072	1940
Mean Score	79.69	74.61

The table above shows that most of the means of each component of the experimental group are higher than that of the control group. Only in term of mechanic, the control group got little higher score than the experimental group. The difference is 0.04. Although the control group got higher score in term of mechanic, the mean score of the experimental group is still higher than that of the control group. The mean score of experimental group is 79.69, while the control group is 74.61. Clearly, there is a difference of 5.08 score points between the mean of the two groups. It indicates that the students' writing skill in the experimental and the control groups are significantly different. In other words, the students who were taught using response journal writing got higher score than those who were not.

b. T-test

To check whether the significant difference of the means score is coincidental or not, t-test was used in the statistical analysis. The procedure for this analysis went from normality and homogeneity test, then, t-test. The Normality and the homogeneity test had been calculated in the chapter III (see in page 48-51). The result of normality and homogeneity test show that the data have normal distribution and are homogeneous. So, the comparative test can be calculated by using t-test. The steps of t-test are as follows.

1) Determine the hypothesis

Ha : Response journal writing strategy is more effective to enhance students' writing skill than traditional strategy.

Ho : Response journal writing strategy is not more effective to enhance students' writing skill than traditional strategy.

Based on the key term in this research, more effective means the students who were taught using response journal writing strategy got higher score than those who were not. The explanation of the hypothesis is presented below.

Ha will be accepted if $t\text{-value} > t\text{-table}$

Ho will be accepted if $t\text{-value} < t\text{-table}$

T-table is the score gotten from t distribution, while t-value is the score gotten from calculation using the formula of t-test.

2) Find the mean, standard deviation and variance

The calculation of the standard deviation and variance of the data was done in Microsoft Excel program. Table 4.4 presents the result of the calculation.

Table 4.6
The Result of Mean, Standard Deviation and Variance

	Experimental Group	Control Group
Total Scores	2072	1940
Mean	79.69	74.61
Standard Deviation	7.01	6.85
Variance	49.18	46.96

From the calculation using Microsoft Excel, it was found that the mean of the experimental group is 79.69. The formula to find the mean in microsoft excell was by typing the following formula (=average) and drag all the score of experimental group. Then using the same form, it was found that the mean of the control group is 74.61. Then, to find the standard deviation, it used form of the microsoft excel as like (=STDEV). And it was found that the standard deviation of the experimental group is 7.01 and the control group is 6.85. While the variance at each group iss 49.18 and 46.96. Then, all the calculation above was used to calculate the t-test.

3) Calculating T-test

To test the result of the t-test score between experimental and control group the formula below was used.

$$t = \frac{x_1 - x_2}{\sqrt{S_p^2 \frac{1}{n_1} + \frac{1}{n_2}}}$$

$$t = \frac{x_1 - x_2}{\sqrt{\left\{ \frac{(n_1 - 1)S_1^2 + ((n_1 - 1)S_2^2)}{n_1 + n_2 - 2} \right\} \frac{1}{n_1} + \frac{1}{n_2}}}$$

$$t = \frac{79,69 - 74,61}{\sqrt{\left\{ \frac{(26 - 1) 49,18 + ((26 - 1) 46,96)}{26 + 26 - 2} \right\} \frac{1}{26} + \frac{1}{26}}}$$

$$\begin{aligned}
 &= \frac{5,08}{\sqrt{3,36}} \\
 &= \frac{5,08}{1,83} \\
 &= 2,77
 \end{aligned}$$

The calculation of t-test above results in the t-value of 2,77. Then, to know whether this value shows significant difference students' scores in writing skill in the two groups, the t- value was then compared with t-table. The result of this comparison informs if the t-value is large enough to reject the null hypothesis at the level of significance 0,05 / 5% or no. Degree of freedom was found out and consulted with t-table. Below is the calculation of *df*.

$$\begin{aligned}
 Df &= N1 + N2 - 2 \\
 &= 26 + 26 - 2 \\
 &= 50
 \end{aligned}$$

Then, the score of *df* was assessed on a t-table distribution (see in Appendix IV) by significance level of 5%. T-table score was 2,021. After that, the t-value and t-table were compared to find the answer whether H_a is rejected or received.

4) Conclusion

The calculation of t-test and *df*, the comparison of the t-value and *df* to the table shows that t-value is higher than that in t-table with t-value of 2,77 and t-table of 2,021. It means that H_a is accepted. Therefore, it can be concluded that response journal writing strategy is more effective to enhance students' writing skill than traditional strategy.

B. Discussion

This section is intended to discuss the result of the research finding. The data of this research was collected from the research instrument that was provided as the basic information about the object of this research.

This study was conducted to answer whether response journal writing strategy is more effective to enhance students' writing skill than traditional strategy. Based on the key term, the definition of more effective is that the students who were taught using response journal writing got higher score than those who were not. Then, the result of this study shows that the students who were taught using response journal writing strategy got higher score than those who were not. The means are 79.69 for the experimental group and 74.61 for the control group. The difference is 5.08. It indicates that response journal writing strategy is more effective to enhance students' writing skill than the traditional strategy.

Response journal writing is more effective to enhance students' writing skill because it helps the students to focus on what they will write. It is known from the informal interview that was done to the students of experimental group after getting the treatment. Most of the students interviewed said that they can focus on what they will write because they had already had something in their mind from reading, viewing and listening something before they write.⁶¹ The statement is the same as Lewis' statement, as cited in Wafa. He stated that journal is one of the effective ways in helping students to organize and in inspiring the students to their writing.⁶² Besides, some of students interviewed said that response journal writing is interesting. It is suitable with the statement in a research by Ema. He stated that response journal writing is considered to be more interesting to do.⁶³ It is because response journal writing can be collaborated with the use media such as article, movie, and others in its activity. Besides, response journal writing makes someone more enjoy to explore their mind. In addition, the students also stated that they could find new vocabularies from reading, watching or listening something.

⁶¹Informal Interview to the eight students of experimental group on Monday, 29 July 2013.

⁶² Asmal Wafa, *Keeping Journal Writing to Improve the Writing Ability of the Tenth Grade Students of SMAN 1 Jekulo Kudus* (Kudus: FKIP Universitas Muria Kudus. 2010),4

⁶³ Ema Aji, *Employing Response Journal Writing Strategy to Improve Students' Writing Skills at the First Year of SMP N 8 Malang* (Malang: University of Malang, 2007). 55