

CHAPTER IV
FINDING AND DISCUSSION

In this chapter, the researcher presents discussion about research findings. This chapter consists of the description of data, the result of normality and homogeneity, hypothesis testing, and discussion.

A. Research Findings

In this sub chapter, the researcher presents the descriptive statistics of the research. The result of students' vocabulary test in pre-test and post-test. The tests were given to eight graders of MTsN 2 Tulungagung. In addition, the test was conducted before and after using Place Based Education strategy as the treatment in teaching vocabulary. The samples of this research are two classes. The data of this research were the pre-test scores and post-test scores of experimental group and control group.

1. Data of Experimental Class

After getting the result of the pretest and posttest of experimental group, the researcher showed the data below:

Table 4.1 Descriptive Statistic of Pre-test and Post-test Score in the Experimental Group

		Statistics	
		Pretest_experim ental	Postest_Experim ental
N	Valid	36	36
	Missing	0	0

Mean	68.75	88.75
Std. Error of Mean	3.664	1.327
Median	72.50	87.50
Mode	90	85
Std. Deviation	21.986	7.962
Variance	483.393	63.393
Range	70	30
Minimum	25	70
Maximum	95	100
Sum	2475	3195

The table 4.1 above shows that mean of pre-test was 68.75 and in post-test improved to be 88.75. The median in the pre-test was 72.50 and 87.50 in the post-test. The mode in the pre-test was 90 and 85 in the post test. The standard deviation in the pre-test was 21.986 and 7.962 in the post-test. The range in the pre-test was 70 and in the post-test was 30. The minimum score in the pre-test was 25 and 70 in the post-test. The maximum score in the pre-test was 95 and 100 in the post-test. The summary of pre-test was 2475 and in the post-test was 3195. In addition, the researcher organized the percentage and the frequency of the test that can be seen in the table 4.2.

Table 4.2 Frequency of pretest score of Experimental group

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 25	1	2.8	2.8	2.8
35	1	2.8	2.8	5.6
40	5	13.9	13.9	19.4
45	3	8.3	8.3	27.8
55	2	5.6	5.6	33.3

60	3	8.3	8.3	41.7
65	2	5.6	5.6	47.2
70	1	2.8	2.8	50.0
75	1	2.8	2.8	52.8
80	2	5.6	5.6	58.3
85	2	5.6	5.6	63.9
90	10	27.8	27.8	91.7
95	3	8.3	8.3	100.0
Total	36	100.0	100.0	

In the table 4.2, 1 students or 2.8% got 25, 1 students or 2.8% got 35, 5 students or 13.9% got 40, 3 students or 8.3% got 45, 2 student or 5.6% got 55, 3 students or 8.3% got 60, 2 students or 5.6% got 65, 1 students or 2.8% got 70, 1 student or 2.8% got 75, and 2 students or 5.6% got 80, 2 students or 5.6% got 85, 10 students or 27.8% got 90, 3 students or 8.3% got 95. This result considered that students only used their background knowledge without any input about vocabulary before.

After getting the treatment, students got improved their results in the post-test. The researcher organized the percentage and frequency of the test that can be seen in the table 4.3:

Table 4.3 Frequency of posttest score of Experimental group

Posttest_Experimental					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	70	1	2.8	2.8	2.8
	75	1	2.8	2.8	5.6
	80	5	13.9	13.9	19.4

85	11	30.6	30.6	50.0
90	7	19.4	19.4	69.4
95	3	8.3	8.3	77.8
100	8	22.2	22.2	100.0
Total	36	100.0	100.0	

Based on the table 4.3, it can be seen that 1 student or 2.8% got 70, 1 student or 2.8% got 75, 5 students or 13.9% got 80, 11 students or 30.6% got 85, 7 students or 19.4% got 90, 3 students or 8.3% got 95, 8 students or 22.2% got 100.

In addition, the researcher makes the categorization of the students score as follow:

Table 4.4 Categorization of the students' scores in pre-test of experimental group

Intervals	Frequency	Categorization	Percentage
81-100	15	Excellent	41.7%
61-80	6	Good	16.7%
41-60	8	Fair/Enough	22.2%
0-40	7	Poor	19.4%

Based on the table of the categorization above, it showed that in pretest there were 15 students or 41.7% got the score 81-100 in excellent categorization. Then, there were 6 students or 16.7% got the score 61-80 in good categorization. 8 students or 22.2% got the score 40-60 in fair or enough categorization, 7 students or 19.4% got the score 0-40 in poor categorization.

Table 4.5 Categorization of the students' scores in post-test of experimental group

Intervals	Frequency	Categorization	Percentage
81-100	29	Excellent	80.6%
61-80	7	Good	19.4%
41-60	0	Fair/Enough	0%
0-40	0	Poor	0%

Based on the table of the categorization above, it showed that in pretest there were 29 students or 80.6% got the score 81-100 in excellent categorization. Then, there were 7 students or 19.4% got the score 61-80 in good categorization.

2. Data of Control Group

After getting the result of the pretest and posttest of control group, the researcher showed the data below:

Table 4.6 Descriptive Statistic of Pre-test and Post-test Score in the Control Group

		Statistics	
		Pretest_control	Posttest_Control
N	Valid	36	36
	Missing	0	0
Mean		70.56	76.11
Std. Error of Mean		2.787	1.656
Median		77.50	75.00
Mode		80	70
Std. Deviation		16.724	9.936
Variance		279.683	98.730
Range		65	45
Minimum		20	45

Maximum	85	90
Sum	2540	2740

The table 4.6 above shows that mean of pre-test was 70.56 and in post-test improved to be 76.11. The median in the pre-test was 77.50 and 75.00 in the post-test. The mode in the pre-test was 80 and 70 in the post test. The standard deviation in the pre-test was 16.724 and 9.936 in the post-test. The range in the pre-test was 65 and in the post-test was 45. The minimum score in the pre-test was 20 and 45 in the post-test. The maximum score in the pre-test was 85 and 90 in the post-test. The summary of pre-test was 2540 and in the post-test was 2740. In addition, the researcher organized the percentage and the frequency of the test that can be seen in the table 4.7.

Table 4.7 Frequency of pretest score of Control group

Pretest_control

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20	1	2.8	2.8	2.8
	25	1	2.8	2.8	5.6
	30	1	2.8	2.8	8.3
	50	1	2.8	2.8	11.1
	55	1	2.8	2.8	13.9
	60	2	5.6	5.6	19.4
	65	4	11.1	11.1	30.6
	70	4	11.1	11.1	41.7
	75	3	8.3	8.3	50.0
	80	11	30.6	30.6	80.6
	85	7	19.4	19.4	100.0
	Total	36	100.0	100.0	

In the table 4.7, 1 student or 2.8% got 20, 1 student or 2.8% got 25, 1 student or 2.8% got 30, 1 student or 2.8% got 50, 1 student or 2.8% got 55, 2 students or 5.6% got 60, 4 students or 11.1% got 65, 4 students or 11.1% got 70, 3 students or 8.3% got 75, 11 students or 30.6% got 80. And 7 students or 19.4% got 85. This result considered that students only used their background knowledge without any input about vocabulary before.

After getting the treatment, students got improved their results in the post-test. The researcher organized the percentage and frequency of the test that can be seen in the table 4.8:

Table 4.8 Frequency of posttest score of Experimental group

		Posttest_Control			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	45	1	2.8	2.8	2.8
	60	2	5.6	5.6	8.3
	65	2	5.6	5.6	13.9
	70	8	22.2	22.2	36.1
	75	6	16.7	16.7	52.8
	80	6	16.7	16.7	69.4
	85	7	19.4	19.4	88.9
	90	4	11.1	11.1	100.0
	Total	36	100.0	100.0	

Based on the table 4.8, it can be seen that 1 student or 2.8% got 45, 2 students or 5.6% got 60, 2 students or 5.6% got 65, 8 students or 22.2% got 70, 6 students or 16.7% got 75, 6 students or 16.7% got 80, 7 students or 19.4% got 85, and 4 students or 11.1% got 90.

In addition, the researcher makes the categorization of the students score as follow:

Table 4.9 Categorization of the students' scores in pre-test of control group

Intervals	Frequency	Categorization	Percentage
81-100	7	Excellent	19.4%
61-80	22	Good	61.1%
41-60	4	Fair/Enough	11.1%
0-40	3	Poor	8.3%

Based on the table of the categorization above, it showed that in pretest there were 7 students or 19.4% got the score 81-100 in excellent categorization. Then, there were 22 students or 61.1% got the score 61-80 in good categorization, 4 students or 11.1% got the score 41-60 in fair or enough categorization, 3 students or 8.3% got the score 0-40 in poor categorization.

Table 4.10 Categorization of the students' scores in post-test of control group

Intervals	Frequency	Categorization	Percentage
81-100	11	Excellent	30.6%
61-80	22	Good	61.1%
41-60	3	Fair/Enough	8.3%
0-40	0	Poor	0%

Based on the table of the categorization above, it showed that in pretest there were 11 students or 30.6% got the score 81-100 in excellent categorization. Then, there were 22 students or 61.1% got

the score 61-80 in good categorization, 3 students or 8.3% got the score 41-60 in fair or enough categorization

B. Normality and Homogeneity Testing

1. Normality Test

Normality testing was conducted to determine whether the gained data was normal distribution or not. The researcher used SPSS 16.0 One-Sample Kolmogorov-Smirnov test by the value of significance (α) = 0.050. The result can be seen in table below:

Table 4.11 Normality Test

One-Sample Kolmogorov-Smirnov Test

		Experimental	Control
N		36	36
Normal Parameters ^a	Mean	88.75	76.11
	Std. Deviation	7.962	9.936
Most Extreme Differences	Absolute	.181	.130
	Positive	.181	.092
	Negative	-.143	-.130
Kolmogorov-Smirnov Z		1.087	.782
Asymp. Sig. (2-tailed)		.188	.573
a. Test distribution is Normal.			

Normality testing was done by using the rule of Asymp. Sig (2 tailed) as follows:

a. If the significance value > 0.050 , then the data has normal distribution.

b. If the significance value < 0.050 , then the data does not have normal distribution.

Based on the result of computation by using of SPSS program 16.0 version, significance value from both pretest in experimental and control class were bigger than 0.05. The significance value of pretest in experimental class was 0.188 and it was bigger than 0.05 ($0.188 > 0.05$). It could be concluded that the test distribution was normal. Then, the significance value of pretest control class was 0.573 and it was bigger than 0.05 ($0.573 > 0.05$). So, the test distribution was normal.

2. Homogeneity Testing

The homogeneity test was conducted to know whether the variety of data both experimental and control classes was same or not. Homogeneity test was important since the result of research would be generalized in a population. In this research, the researcher conducted testing the homogeneity by using SPSS 16.0 version.

The homogeneity testing must fulfill the testing criteria as follows:

- a. If the significance value > 0.050 , then the data distribution is homogeneous.
- b. If the significance value < 0.050 , then the data distribution is not homogeneous.

Table 4.12 The Output of Homogeneity Testing

Test of Homogeneity of Variances

Results

Levene Statistic	df1	df2	Sig.
1.125	1	70	.293

From the table above, the number of levene statistics was 1.125 while the significance value was 0.293, and it was bigger than 0.05. So, the homogeneity testing of variance in pretest of control class and experimental class shown that the data had homogeneity of variances and could be used as sample in this research.

C. Hypothesis Testing

The hypothesis testing of this study as follow:

1. H_0 : Null hypothesis

There is no any significant difference in students' vocabulary mastery before and after being taught by using Place Based Education strategy.

2. H_1 : Alternative hypothesis

There is any significant difference in students' vocabulary mastery before and after being taught by using Place Based Education strategy.

After computing the data using t-test formula by using SPSS 16.0 version, the result of mean and standard deviation could be seen on Table 4.13 as follows:

Table 4.13 The Output of Group Statistics

Group Statistics					
Group		N	Mean	Std. Deviation	Std. Error Mean
Results	Experimental	36	88.750	7.9620	1.3270
	Control	36	76.111	9.9363	1.6561

Based on the Table 4.13 above, the subjects in experimental class were 36 students and in the control class were 36 students. The mean score of experimental class was 88.750. the mean score of control class was 76.111. So, the mean score of experimental class was higher than the mean

score of control class. It means that the student's score increase being taught using PBE in vocabulary achievement. Standard deviation in experiment class was 7.9620 and the standard deviation in control class was 9.9363. Meanwhile, the standard error mean in experiment class was 1.3270 and in control class was 1.6561.

In addition, the result of t-test testing applying the SPSS 16.0 version could be on Table 4.14 as follows:

Table 4.14 The Output of T-test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Results	Equal variances assumed	1.125	.293	5.956	70	.000	12.6389	2.1221	8.4064	16.8713
	Equal variances not assumed			5.956	66.825	.000	12.6389	2.1221	8.4029	16.8749

Based on the Table 4.14 the t-value is 5.956, with the $df = 70$, and the p-value (two-tailed) is 0.000. The significance level is 0.05. For interpretation of decision based on the result of probably achievement, that was:

- 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.

The table showed that the significant value (Sig-2 tailed) was 0.000 and it smaller than 0.05 ($0.00 < 0.05$) it means that H_0 was rejected and H_a was accepted. Thus, it can be interpreted that there was significant difference in students' vocabulary mastery before and after being taught by using Place Based Education strategy.

D. Discussion

Regarding to the research findings above, the data were analyzed with the help of SPSS program 16.0 version. The calculation of the achievement using t-test showed that there was significant difference of students' achievement before and after those who were taught by using Place Based Education and those who were not. The mean of control group in pre-test was 70.56 and in post-test improved to be 76.11. Then, the mean of experimental group of pre-test was 68.75 and in post-test improved to 88.75.

It can be interpreted that the vocabulary mastery of the students had been improved after getting the treatment. On the output of t-test showed that the significant value of the t (2-tailed) was 0.000. Since it was lower than the significant 0.050, it was concluded that there was a significant difference in the students' achievement between the experimental and the control groups in mastering academic vocabulary. It means that the alternative hypothesis (H_a) was accepted and the null hypothesis (H_0) was rejected. In other words, it can be concluded that

there was a significant difference on students' score in vocabulary between those who were taught by using PBE and those who were not.

From the result of the data analysis above, it can be concluded that PBE can be used as a strategy to teach vocabulary for students. Place is an important influence and topic because it helps students to better understand notions of context and personal identity. Place also give meaningful and better understanding of material to the students. In addition, Place Based Education is able to be used in any kinds of curriculum. It is an effective approach in enhancing student engagement with learning.

Regarding to the previous study entitled "The Effectiveness of Place Based Education (PBE) on Seventh Grade Student Achievement In Writing Descriptive Text at SMP Negeri 1 Kalidawir" by Prastiyo in 2017, the result showed that the mean score of the students' before being taught with PBE was 64.56, and after being taught with Place Based Education the mean score was improved to 75.25. In sum, there was a significant difference between students' achievement before and after being taught by using Place Based Education strategy at second year of SMPN 1 Kalidawir.

Another study entitled "Teaching EFL in a rural context through Place Based Education: Expressing our place experiences through short poems" by Jaramillo and Malagon in 2017 also has shown that students improved their conscious reading towards the rural context, in their case the Village of Quiba, by knowing its history, its flora and fauna, its

important places and people, and its environmental issues. In addition, regarding students' English learning, they showed more confidence and enthusiasm when writing in English; a fact that led students to gain more meaningful and situated vocabulary in English.

Based on the explanation above, Place Based Education helped and encouraged students to be active and improve their participations in teaching learning activity. It can be concluded that the use of Place Based Education was effective toward vocabulary mastery of the eight grade students at MTsN 2 Tulungagung in the academic year of 2018/2019.