CHAPTER IV

FINDINGS AND DISCUSSION

In this chapter, the writer presents discussion about research findings, hypothesis testing and discussions of the research findings.

A. Research Findings

This part discusses an analysis of the ability of the seventh graders of MTsN5 Tulungagung in vocabulary mastery when they were taught using Modified Domino Cards Game and when they were taught vocabulary without using Modified Domino Cards Game. 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. After getting the result of the pretest and posttest of experimental group, the researcher showed the data below:

Table 4.2
Statistical data of pre-test and post-test score in the experimental group
Statistics

		pretest	posttest
N	Valid	25	25
	Missing	0	0
Mean		57.00	84.56
Std. Error of Mean		1.335	1.884
Median		60.00	86.00
Mode		62	78[a]
Std. Deviation		6.677	9.421
Variance		44.583	88.757
Range		21	40
Minimum		44	60
Maximum		65	100
Sum		1425	2114

a. Multiple modes exist. The smallest value is shown

The table 4.2 above shows that mean of pre-test was 57.00 and in post-test improved to be 84.56. The median in the pre-test was 60.00 and 86.00 in the post-test. The mode in the pre-test was 62 and 78 in the post-test if there was ([a]) the value was multiple modes exist. The standard deviation in the pre-test was 6.677 and 9.421 in the post-test. The range in the pre-test was 21 and in the post-test was 40. The minimum score in the pre-test was 44 and 60 in the post-test. The maximum score in the pre-test was 65 and 100 in the post-test. The summary of pre-test was 1425 and in the post-test was 2114. In addition, the researcher organized the percentage and the frequency of the test can be seen in the table 4.3.

Table 4.3

Frequency of pretest score of Experimental group

pretest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	44	2	8.0	8.0	8.0
	48	2	8.0	8.0	16.0
	50	2	8.0	8.0	24.0
	52	2	8.0	8.0	32.0
	55	1	4.0	4.0	36.0
	57	3	12.0	12.0	48.0
	60	3	12.0	12.0	60.0
	62	6	24.0	24.0	84.0
	64	1	4.0	4.0	88.0
	65	3	12.0	12.0	100.0
	Total	25	100.0	100.0	

In the table 4.3, 2 students or 8% got 44, 2 students or 8% got 48, 2 students or 8% got 50, 2 students or 8% got 52, 1 student or 4% got 55, 3 students or 12% got 57, 3 students or 12% got 60, 6 students or 24% got 62, 1

student or 4% got 64, and 3 students or 12% got 65. 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 can be seen in the table 4.4. 1 student or 4% got 60, 1 student or 4% got 72, 1 student or 4% got 74, 1 student or 4% got 75, 1 student or 4% got 76, 2 students or 8% got 78, 1 student or 4% got 79, 2 students or 8% got 80, 1 student or 4% got 84, 1 student or 4% got 85, 2 students or 8% got 86, 2 students or 8% got 87, 1 student or 4% got 89, 1 student or 4% got 90, 2 students or 8% got 93, 2 students or 8% got 94, 2 students or 8% got 97, and 1 student or 4% got 100.

Table 4.4

Frequency of posttest score of Experimental group

posttest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60	1	4.0	4.0	4.0
	72	1	4.0	4.0	8.0
	74	1	4.0	4.0	12.0
	75	1	4.0	4.0	16.0
	76	1	4.0	4.0	20.0
	78	2	8.0	8.0	28.0
	79	1	4.0	4.0	32.0
	80	2	8.0	8.0	40.0
	84	1	4.0	4.0	44.0
	85	1	4.0	4.0	48.0
	86	2	8.0	8.0	56.0
	87	2	8.0	8.0	64.0
	89	1	4.0	4.0	68.0
	90	1	4.0	4.0	72.0

93	2	8.0	8.0	80.0
94	2	8.0	8.0	88.0
97	2	8.0	8.0	96.0
100	1	4.0	4.0	100.0
Total	25	100.0	100.0	

Based on the table 4.4 above, the researcher makes the categorization of the students score as follow:

Table 4.5

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

Intervals	Frequency	Categorization	Percentage
81 – 100	0	Excellent	0%
61 – 80	10	Good	40%
41 – 60	15	Fair/Enough	60%
0 – 40	0	Poor	0%

Based on the table of the categorization above, it showed that in pretest there were 10 students or 40% got the score 61-80 in good categorization. Then, there were 15 students or 60% got the score 41-60 in fair or enough categorization.

Table 4.6

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

Intervals	Frequency	Categorization	Percentage
81 – 100	15	Excellent	60%
61 – 80	9	Good	36%
41 – 60	1	Fair/Enough	4%
0 – 40	0	Poor	0%

Based on the table of categorization above, there were 15 students or 60% got the score 81-100 in excellent categorization, 9 students or 36% got

the score 61-80 in good categorization, 1 student or 4% got the score 41-60 in fair or enough categorization. While, there were not any students or 0% got score 0-40 in poor categorization. In the conclusion, the biggest categorization was excellent. The data of students' score categorization was concluded in the diagram below:

Figure 4.1

The diagram of student's score categorization of experiment class
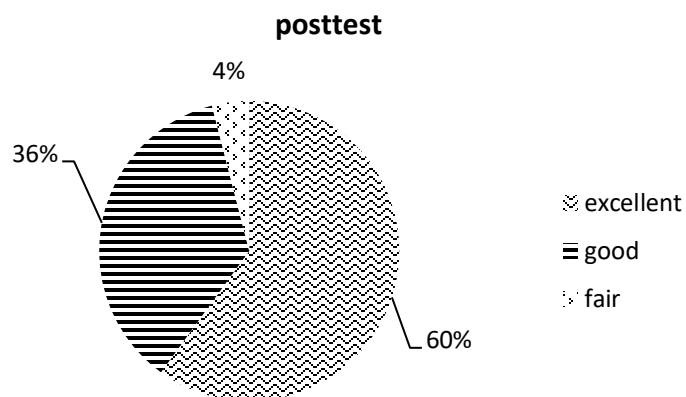
Based on the diagram 4.1 above, the major of the shading in the pie diagram was wave as excellent categorization, the dark horizontal as good categorization, divot as fair categorization.

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

Table 4.8

Statistical data of pre-test and post-test score in the control group

Statistics

		pretest	Posttest
N	Valid	25	25
	Missing	0	0
Mean		54.64	70.72
Std. Error of Mean		1.385	1.893
Median		53.00	74.00
Mode		58	75
Std. Deviation		6.927	9.467
Variance		47.990	89.627
Range		22	33
Minimum		44	53
Maximum		66	86
Sum		1366	1768

Based on the table 4.8 above, shows that mean of pre-test was 54.64 and in post-test improved to be 70.72. The median in the pre-test was 53.00 and 74.00 in the post-test. The mode in the pre-test was 58 and 75 in the post-test. The standard deviation in the pre-test was 6.927 and 9.467 in the post-test. The range in the pre-test was 22 and in the post-test was 33. The minimum score in the pre-test was 44 and 53 in the post-test. The maximum score in the pre-test was 66 and 86 in the post-test. The summary of pre-test was 1366 and in the post-test was 1768. In addition, the researcher organized the percentage and the frequency of the test can be seen in the table 4.9.

Table 4.9

Frequency of pretest score of Control group

pretest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	44	1	4.0	4.0	4.0
	45	2	8.0	8.0	12.0
	46	1	4.0	4.0	16.0
	47	1	4.0	4.0	20.0
	48	3	12.0	12.0	32.0
	52	2	8.0	8.0	40.0
	53	3	12.0	12.0	52.0
	58	4	16.0	16.0	68.0
	61	3	12.0	12.0	80.0
	62	3	12.0	12.0	92.0
	65	1	4.0	4.0	96.0
	66	1	4.0	4.0	100.0
	Total	25	100.0	100.0	

Based on the table 4.9 above, 1 student or 4% got 44, 2 students or 8% got 45, 1 student or 4% got 46, 1 student 4 or % got 47, 3 students or 12% got 48, 1 student or 4% got 52, 3 students or 12% got 53, 4 students or 16% got 58, 3 students or 12% got 61, 3 students or 12% got 62, 1 students or 4% got 65, and 1 student or 4% got 66.

After the treatment, the students got improved their score but there was some students got lower score than their pre-test. Based on the table 4.10 below, 1 student or 4% got 53, 1 student or 4% got 55, 1 student or 4% got 56, 1 student or 4% got 60, 1 student or 4% got 61, 1 student or 4% got 62, 2 students or 8% got 63, 2 students or 8% got 67, 1 student or 4% got 72, 1 students or 4% got 73, 2 students or 8% got 74, 4 students or 16% got 75, 1

student or 4% got 76, 1 student or 4% got 77, 1 student or 4% got 81, 3 students or 12% got 83, 1 student or 4% got 86.

Table 4.10

Frequency of post-test score of Control group

Posttest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	53	1	4.0	4.0	4.0
	55	1	4.0	4.0	8.0
	56	1	4.0	4.0	12.0
	60	1	4.0	4.0	16.0
	61	1	4.0	4.0	20.0
	62	1	4.0	4.0	24.0
	63	2	8.0	8.0	32.0
	67	2	8.0	8.0	40.0
	72	1	4.0	4.0	44.0
	73	1	4.0	4.0	48.0
	74	2	8.0	8.0	56.0
	75	4	16.0	16.0	72.0
	76	1	4.0	4.0	76.0
	77	1	4.0	4.0	80.0
	80	1	4.0	4.0	84.0
	83	3	12.0	12.0	96.0
	86	1	4.0	4.0	100.0
	Total	25	100.0	100.0	

Based on the table 4.10 above, the researcher makes the categorization of the students score as follow:

Table 4.11

Categorization of the students score in pre-test of control group

Intervals	Frequency	Categorization	Percentage
81 – 100	0	Excellent	0%
61 – 80	8	Good	32%
41 – 60	17	Fair/Enough	68%
0 – 40	0	Poor	0%

Based on the table 4.11 of the categorization above, it showed that in pretest there were 8 students or 32% got the score 61-80 in good categorization. Then, there were 17 students or 68% got the score 41-60 in fair or enough categorization.

Table 4.12

Categorization of the students score in post-test of control group

Intervals	Frequency	Categorization	Percentage
81 – 100	4	Excellent	16%
61 – 80	16	Good	64%
41 – 60	4	Fair/Enough	16%
0 – 40	0	Poor	0%

Based on the table 4.12 of categorization above, there were 4 students or 16% got the score 81-10 in excellent categorization, 16 students or 64% got the score 61-80 in good categorization, then 4 students or 16% got the score 41-60 in the fair or enough categorization. In the conclusion, the biggest categorization was good. The data of students' score categorization was concluded in the diagram below:

Figure 4.2

The diagram of student's score categorization in control group

posttest
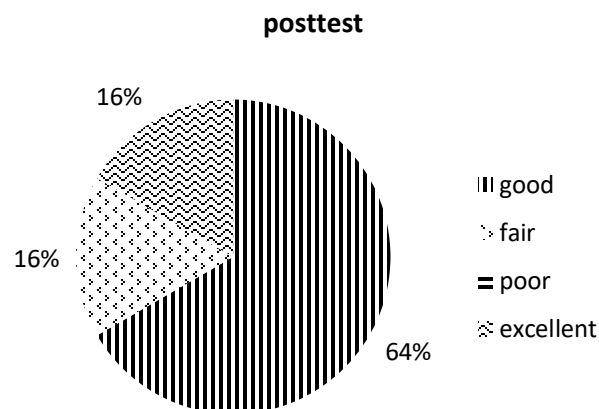
Based on the diagram above, the major of the shading in the pie diagram was dark vertical as good categorization, divot as excellent categorization, and wave as fair categorization.

B. Hypothesis Testing

There were two hypotheses here that was f and t hypothesis. Before discussing the t-test, the researcher needed to test the f-test. F-test is used to know the equality of variance of the two groups. And, the t-test was used to test the two means (experimental and control group). Although, the f-test was automatically serve in the SPSS table of t-test, the researcher write down f hypothesis as the requirement in quasi experiment (experimental and control group). The hypothesis of this research are as follow:

1. Hypothesis testing of F-test
   a. Ho: $\sigma_1^2 = \sigma_2^2$, it means if there is an equal variance between experimental and control group.
   b. Ha: $\sigma_1^2 \neq \sigma_2^2$, it means if there is no equal variance between experimental and control group.
   1) If *p*-value (Sig) bigger than 0.05 the null hypothesis (Ho) is not rejected. As such, *equal variances* is used.
   2) If *p*-value (Sig) less than 0.05 the null hypothesis (Ho) is rejected. As such, *equal variances not assumed* is used.
2. Hypothesis testing of T-test
   a. Null Hypothesis (Ho)
      There is no significant different score on the students' vocabulary mastery between students' taught with and without using Modified Domino Cards Game at the first grade of MTsN 5 Tulungagung in the academic year 2018/2019.
   b. Alternative Hypothesis (Ha)

There is significant different score on the students' vocabulary mastery between students' taught with and without using Modified Domino Cards Game at the first grade of MTsN 5 Tulungagung in the academic year 2018/2019.

1) If sig(2-tailed) is smaller than 0,05 the alternative hypothesis (Ha) is not rejected and the null hypothesis (Ho) is rejected.

2) If sig(2-tailed) is bigger than 0,05 the alternative hypothesis (Ha) is rejected and the null hypothesis (Ho) is not rejected.

To know whether there is any significant different students vocabulary mastery between the students who are taught and the students who are no taught by using Modified Domino Cards Game, the researcher analyzed the data by using SPSS 16.0 version, the result can be seen on table as below:

Table 4.13 result of t-test

Group Statistics

	class	N	Mean	Std. Deviation	Std. Error Mean
score	1	25	70.72	9.467	1.893
	2	25	84.56	9.421	1.884

Based on table 4.7, it showed there were two classes, it was control class and experimental class. First Control class (1), showed in N cell there was 25, Mean of score control class (70.72), Standard Deviation for control class (9.467), and standard error mean for control class (1.893). While, in Experimental class or class 2, showed N cell there was 25, Mean of score experimental class (84.56), Standard Deviation for experimental class (9.421), and Standard Error Mean for experimental (1.884). From the result above it was concluded that there was significant different of students' score mean between those who were taught by using Modified Domino Cards Game and those who weren't.

Table 4.14 Result of t-test

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)	Mean Difference	Std. Error Difference	Lower	Upper
score	Equal variances assumed	.112	.740	-5.181	48	.000	-13.840	2.671	-19.211	-8.469
	Equal variances not assumed			-5.181	47.999	.000	-13.840	2.671	-19.211	-8.469

Based on the table 4.14 above, it showed that F was 0.112 it meant that F (0.112) was bigger than 0.050 and Ho was accepted. It can be concluded that both variance experimental and control group are the same. The result is the writer used Equal Variance Assumed in making decision of t-test.

Based on the table 4.14, the significant value of the t (2-tailed) was 0.000. Because 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 vocabulary. It meant that the alternative hypothesis (Ha) was accepted and the null hypothesis (Ho) was rejected. In other words, it could be concluded that there was a significant difference on students' score in the teaching vocabulary between those who were taught by using Modified Domino Card Game and those who were not.

C. Discussion

Regarding to the research findings above, the data were analyzed with the helped 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 Modified Domino Cards Game and those who were not. The mean of control group in pre-test was 54.64 and in post-test improved to be 70.72. Then, the mean of experimental group of pre-test was 57.00 and in post-test improved to 84.56.

It can be interpreted that the vocabulary mastery of the student 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. Because 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 meant that the alternative hypothesis (Ha) was accepted and the null hypothesis (Ho) was rejected. In other words, it can be concluded that there was a significant difference on students' score in the teaching vocabulary between those who were taught by using Modified Domino Card Game and those who were not.

From the result of data analysis above, game can be used to teach vocabulary mastery of the students like Modified Domino Cards Game. According Wetrup and Baker (2000: 38), Domino cards here means matching words and pictures, or matching words to their meanings. In this case, Dominoes game was utilized as a game which uses cards as the media made of any particular paper contents of a word of target language on one side and the other side is the meaning of the word in the first language learner. The researcher used Modified Domino Cards Game to teach vocabulary at the first grade students of MTsN 5 Tulungagung.

The result of this research was also similar to the previous studies. The first was the research from Aristika (2015) from IAIN Tulungagung with the title ''Improving the Fifth Grade Students' Vocabulary Mastery through Modified Domino Cards at Elementary School Mergayu 1 in the Academic Year 2014/2015''. The design of this study was CAR (Classroom Action Research). She used classroom action research design to find out to improvement of students' vocabulary mastery. From the preliminary test result, the mean of the students' score was 49, 44. There was an improvement on the mean score of the test. In the first cycle it was 61.38 and improved to 90.00 in the second cycle. Therefore, the use of Modified Domino Game can improve students' vocabulary mastery. Compared with previous research, this research used quasi experimental design while Aristika's research used Classroom Action Research (CAR). Although the findings of this research and Aristika's research were the same, that Modified Domino Game was effective in teaching vocabulary mastery.

The second was a study from Pradiatama (2017) from IAIN Tulungagung. with the tittle "The Effectiveness of using Modified Domino Card Game toward Students' Vocabulary Mastery at Seventh Grade of MTs Assyafi'iyah Gondang Tulungagung in the Academic Year 2016/2017". She used pre-experimental research design by using one group pre-test post-test with quantitative approach. She found that Modified Domino Cards Game was effective to increase students' vocabulary mastery. It could be seen from the results of test scores. It showed that the mean of pretest was 60.91 and the mean of posttest was 77.71. Compared with previous research, this research used quasi experimental design while Pradiatama's research used pre-experimental research design. Although the finding of this research and Pradiatama's

research were the same, that Modified Domino Game was effective in teaching vocabulary mastery.

Furthermore, this research also confirmed some research theories from the experts. In this study, the writer focused on the use of Modified Domino Cards Game to develop students' academic vocabulary mastery. The first theory comes from Brewster (2003:174) stated that game could give some advantages in learning activity, one of them said that game was provide hidden practice of specific language patterns, vocabulary, and pronunciation. Then, according to Vuano and Ciolino (200:2) state dominoes have many advantages, those are it makes students can participate freely because they are in formal atmosphere, it makes the teachers usually get immediate feedback by using these kinds of activities, it is as reinforcement for the students to contribute to an atmosphere of healthy competition and ensure a great amount of student participation, it makes the students to focus on a specific structure, it automatically stimulates students' interest. During the research, the students looked focus, interest, and easily understand the material about vocabulary.

The other finding was students' motivation in learning activity. During the learning process the students were motivated. It can be seen from the students enthusiastic in joining and playing the game. This finding was the same with the theory of Suyanto (2010:17) explains that young learners prefers studying by using game because it makes students motivated to study English. While Deesri (2002) stated that game was effective because provide motivation, lower students' stress and communicative.

Based on the explanation above, Modified Domino Cards Game may able to make students to be active and improved their participations in the class, because this game helped and encouraged learner to sustain their interest and work games also helped the teacher to create contexts in

which the language was useful and meaningful. It meant that Domino Cards Game could support them to do cooperation each other in playing the games and they will make relationship to win the game from the other group. It can be concluded that the use of Modified Domino Cards Game was effective toward vocabulary mastery of the seventh grade students at MTsN 5 Tulungagung in the academic year of 2018/2019.