CHAPTER IV

FINDINGS AND DISCUSSION

This chapter presents about research finding that includes about the description of data, hypothesis testing and discussion.

A. The Description of Data

The researcher presented the research data from the students' grammar mastery on past tense before being taught by Bingo game and after being taught by Bingo game. The researcher used pre-experimental research design by using one group pre-test and post-test with quantitative approach. The researcher chose eighth grade to conduct the research. The class consists of 35 students with 14 male students and 21 female students. The researcher used test as the research instrument with used pre-test and post-test.

Pre-test was given to the students before being taught by Bingo game, and the test conducted before got the treatment. This test aimed to know the basic competence the students' grammar mastery on past tense. The test in the form of multiple choices which consists of 20 questions, and each item has four choices, they are A, B, C, D. The students had to finish the test in 30 minutes.

After got the pre-test, the students were given a treatment by using Bingo game by the researcher. Firstly, the researcher gave a definition and formulation of simple past tense to the students. After that, the researcher gave Bingo game for

the students to know their knowledge about grammar, especially on past tense. During the treatment, the students looked enjoy the game.

When the treatment finished, the researcher gave post-test to the students. Post-test was given to the students to know the students' grammar comprehension after being taught by Bingo game. The test in the form of multiple choices which consists of 20 questions, and each item has four choices, they are A, B, C, D. The students had to finish the test in 30 minutes. From the pre-test and post-test, the researcher got the scores.

The total score of pretest was 1990, and the total score of post-test was 2800. Besides that, based on the table, the lower score of pre-test was 30 which gotten by one student, and the lower score of post-test was 60 which gotten by one student. While, the higher score of pre-test was 75 which gotten by five students, and the higher score of post-test was 95 which gotten by five students.
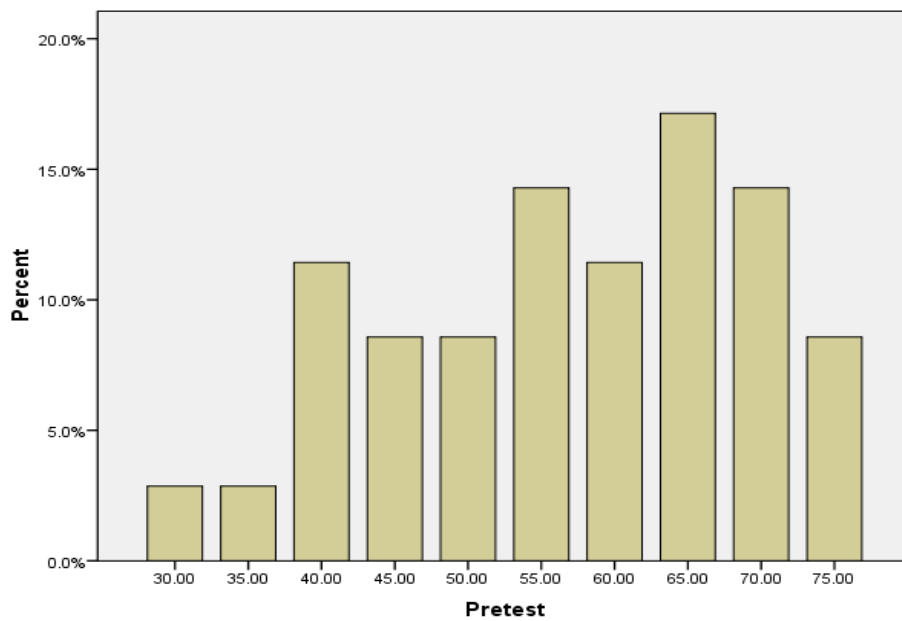
To make the data set meaningful, the researcher organized the frequency and the percentage of score in pre-test by using IBM SPSS Statistic 16.0 for windows. The result can be seen on the table below:

Table 4.1 Statistics of Pre-test

Statistics

Pretest

N	Valid	35
	Missing	0

Table 4.2 Frequency of Score in Pre-test

Pretest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30	1	2.9	2.9	2.9
	35	1	2.9	2.9	5.7
	40	4	11.4	11.4	17.1
	45	3	8.6	8.6	25.7
	50	3	8.6	8.6	34.3
	55	5	14.3	14.3	48.6
	60	4	11.4	11.4	60.0
	65	6	17.1	17.1	77.1
	70	5	14.3	14.3	91.4
	75	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

Figure 4.1 The Percentage of Score in Pre-Test

As the result of table 4.2 and further explained by figure 4.1 showed that from 35 students, 1 student (2.9%) got 30, 1 student (2.9%) got 35, 4 students (11.4%) got 40, 3 students (8.6%) got 45, 3 students (8.6%) got 50, 5 students (14.3%) got 55, 4 students (11.4%) got 60, 6 students (17.1%) got 65, 5 students (14.3%) got 70, and 3 students (8.6%) got 75.

To make the data set meaningful, the researcher also organized the frequency and the percentage of score in post-test by using IBM SPSS Statistic 16.0 for windows. The result can be seen on the table below:
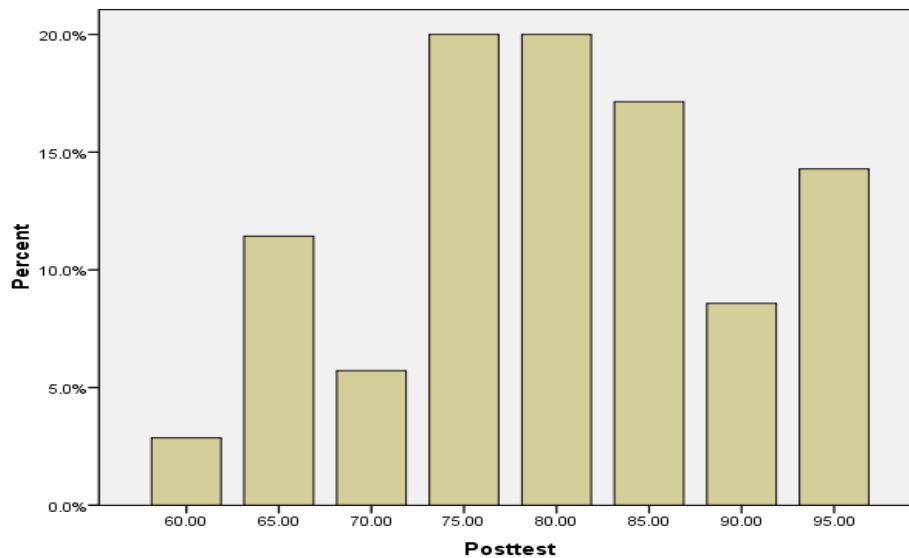
Table 4.3 Statistics of Post-test

Statistics

Posttest

N	Valid	35
	Missing	0

Table 4.4 Frequency of Score in Post-test

Posttest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60	1	2.9	2.9	2.9
	65	4	11.4	11.4	14.3
	70	2	5.7	5.7	20.0
	75	7	20.0	20.0	40.0
	80	7	20.0	20.0	60.0
	85	6	17.1	17.1	77.1
	90	3	8.6	8.6	85.7
	95	5	14.3	14.3	100.0
	Total	35	100.0	100.0	

Figure 4.2 The Percentage of Score in Post-Test

The finding of table 4.4 and further explained by figure 4.2 showed that the students' score in post-test were increase after the students accepted the treatment. The lowest score in post-test was 60 which got by 1 student (2.9%), it meant that there was significant difference from the lowest score in pre-test (30). Meanwhile, the highest score in post-test was 95 which got by 5 students (14.35%), it showed that it was larger score than pre-test (75). This finding indicated that after the students were taught by Bingo game, the students' achievement on grammar mastery especially past tense increased proven by the progress score from pre-test to post-test.

After organizing the frequency and percentage of score from pre-test and post-test, the range, the minimum and maximum, the sum, the mean, the standard deviation, the variances of the grammar pre-test and post-test scores of the sample

were conducted respectively by using SPSS 16.0 for windows. The result can be seen below:

Table 4.5 Descriptive Statistics for Pre-Test and Post-Test

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	35	30	75	56.86	12.372
Posttest	35	60	95	80.00	9.777
Valid N (listwise)	35				

From the table 4.5 explained that the mean of post-test score (80.00) was higher than the mean of pre-test (56.86). It indicated that on average, the use of Bingo game had caused the improvement of students' score. However, to know whether there was significant different score of the students before the students were taught by Bingo game and after the students were taught by Bingo game, the researcher used statistical test by using paired sample t-test on SPSS 16.0 for windows to analyze the data. The result can be seen below:

Table 4.6 Paired Sample Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	56.86	35	12.372	2.091
	Posttest	80.00	35	9.777	1.653

From the table 4.6, the output of paired samples statistics can be described that the mean score of pre-test was 56.86, and the mean of post-test was 80.00. The number of sample both pre-test and post-test was 35. The standard deviation of pre-test was 12.372, and the standard deviation of post-test was 9.777. Meanwhile, the standard error mean of pre-test was 2.091, and the standard error mean of post-test was 1.653. It can be concluded that the mean score in pre-test and post-test was different. The mean score of pre-test was less than the mean score of post-test (56.86 < 80.00) or the mean score of post-test was higher that the mean score of pre-test (80.00 > 56.86). So, there was increasing score from pre-test to post-test means that there was significant different score after the students were taught by Bingo game in increasing grammar mastery.

Table 4.7 Paired Sample Correlations

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pretest & Posttest	35	.906	.000

From the table 4.7 explained that the number of sample was 35 students. The correlation was 0.906, and the significant value was 0.000. Correlation is the relationship between two pairs, if the correlation is counted by quadrate means the giving treatment has significance role toward different score (Widhiarso, 2012: 6). In this research, the two pairs were pre-test and post-test. The correlation was $(0.906)^2 = 0.82$. It means that the 82% increasing score of pre-test was caused by

giving treatment and the 18% was caused by the other factor. Widhiarso (2012: 6) states that sig. is level of significance, and the roles are:

a. If sig > 0.05 there is no influence of giving treatment towards pre-test and post-test score.

b. If sig < 0.05 there is an influence of giving treatment towards pre-test and post-test score.

In this research, the significance value was 0.000. It concluded that the level of significance was less than 0.005 (0.000 < 0.05), it told that there was an influence of giving treatment toward pre-test and post-test score, the total score of post-test was higher than pre-test (2800 > 1990). It means that the increasing score was caused by giving treatment. The treatment was effective to teach grammar for the junior high school students.

Table 4.8 Paired Samples Test

Paired Samples Test

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest - Posttest	-23.143	5.435	.919	-25.010	-21.276	-25.192	34	.000

From the table 4.8 explained that the mean of pre-test and post-test were (23.143). The standard deviation was (5.435). The standard error mean was (0.919). The lower difference was (25.010) and the upper difference was (21.276).

The result of t_{count} was (25.192), the result of df was (34), and the significance was 0.000.

The explanation of data can be done by two methods, there were based on the result of t_{count} and the result of level significant. The explanation can be seen below:

a. Comparing the result of t_{count} and t_{table}.

The score of t_{count} in this research is 25.192, and to know the t_{table} of this research can be seen from t and df. The df is 34, the score of t_{table} for standard significant 0.05 is 2.032. It means that t_{count} was higher than t_{table} (25.192 > 2.032). If t_{count} > t_{table}, the null hypothesis (H_0) was rejected, and the alternative hypothesis (H_a) was accepted. It means that there was significance difference of students' grammar score before they were taught by Bingo game and after they were taught by Bingo game.

b. The result of level significant.

a) If sig > 0.05 the null hypothesis was accepted.

b) If sig < 0.00 the null hypothesis was rejected.

The score of sig in this research is 0.000, it means that the level of sig. was lower than 0.05 (0.000 < 0.05). It indicated that the null hypothesis was rejected and the alternative hypothesis was accepted. So, there was significant difference of students' grammar score before they were taught by Bingo game and after they were taught by Bingo game.

B. Normality and Homogeneity Testing

    1. The Result of Normality Testing

In testing the hypotheses, the data is in normal distribution if Ho is accepted. In this case, H_0 was rejected if significance value is lower than 0.05 (α = 5%) while H_0 was accepted if the significance value is higher than 0.05. The analysis is as follow:

Table 4.9 One-Sample Kolmogorov-Smirnov Test

<div align="center">

One-Sample Kolmogorov-Smirnov Test

</div>

		Pretest	Posttest
N		35	34
Normal Parameters[a]	Mean	56.86	79.56
	Std. Deviation	12.372	9.564
Most Extreme Differences	Absolute	.145	.111
	Positive	.088	.099
	Negative	-.145	-.111
Kolmogorov-Smirnov Z		.857	.647
Asymp. Sig. (2-tailed)		.455	.797
a. Test distribution is Normal.			

Based on the output from SPSS above, it was known that the significance value of pre-test was 0.455 and the post-test was 0.797. Both value from pre-test and post-test were bigger than 0.05. The significance value on pre-test was 0.455 and it was bigger than 0.05 (0.455 > 0.05). It meant that H_0 was accepted and H_a was rejected and the data was in normal distribution. Then, for post-test score the value of significance was 0.797 and that was bigger than 0.05 (0.797 > 0.05). It

also meant that H_0 was accepted and H_a was rejected and the data was in normal distribution. So, it can be interpreted that both of data (pre-test and post-test score) were in normal distribution.

2. The Result of Homogeneity Testing

Homogeneity testing is conducted to know whether the gotten data has a homogeneous variance or not. To know the homogeneity, the researcher used Test of Homogeneity of Variances on SPSS 16.0 for windows by the value of significance 0.05. The result can be seen below:

Table 4.10 Homogeneity Testing

Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.842	6	27	.128

Based on the table above is known that the sig. value is 0.128 higher than 0.05. It means that H_o was accepted and H_a was rejected. So, it can be interpreted that the data is homogeny.

C. Hypothesis Testing

Based on the statistical analysis by using paired sample t-test on SPSS 16.0 for windows, the output showed that the score of t_{count} was 25.192 with the df 34. The score of t_{table} for standard significant 0.05 and df 34 was 2.032. Hence, the score of t_{count} was higher than t_{table} (25.192 > 2.032) and the null hypothesis was

rejected and the alternative hypothesis was accepted. Based on the analysis above can be concluded that there was significant difference of students' grammar score before they were taught by Bingo game and after they were taught by Bingo game. So, Bingo game was effective to be used to teach grammar especially on past tense for eighth graders at MTsN Tulungagung.

D. Discussion

The objective of this research is to find out the score of eighth graders' grammar mastery especially on past tense at MTsN Tulungagung in the academic year 2016/2017 before they are taught by Bingo game and after they are taught by Bingo game.

To get the objective, the researcher conducted some steps to get the data. The researcher used a test as the instrument of the research by used administering test. The researcher conducted pre-test, treatment by using Bingo game, and post-test to get the score. From the score, the researcher could know the objective which the researcher found out.

From the score of pre-test and post-test, the researcher analyzed the score by using paired sample t-test on SPSS 16.0 for windows. The output of paired sample statistics showed that the mean of pre-test was 56.86 and the mean of post-test was 80.00. It concluded that the students' grammar mastery had been improved after they were taught by Bingo game. Meanwhile, the output of paired sample showed that the score of t_{count} was 25.192 with df 34, the score of level significant 0.05 with df 34 was 2.032. Based on the analysis above, the score of

t_{count} was higher than t_{table} (25.192 > 2.032), and the level of significance was lower than 0.05 (0.000 < 0.05). It means that the null hypothesis (H_0) was rejected and the alternative hypothesis (H_a) was accepted. It can be concluded that there was any significant different students' score on grammar mastery before and after they were taught by Bingo game.

Based on the previous studies, Bingo game was effective in teaching vocabulary, but in this finding showed that using Bingo game was effective in teaching grammar especially past tense. Although there was any difference between this finding with the previous studies, both showed that Bingo game can used in teaching grammar or teaching vocabulary.

This finding was related with the theory about Bingo game to teach grammar. According to Susser (1979: 63), bingo is a popular game which has been used for language teaching in many forms. In this research, the researcher taught grammar by using Bingo game, because this game can be taught in many forms not only on grammar, such as in teaching vocabulary. Based on the analysis above, showed that grammar can be taught by using Bingo game. Study of using various games and electronic activities like *gramma gories* and *bingo set* proved to reinforce grammar in a college writing classroom (Thomas's, 2005).

Besides the increasing of the students' score of grammar, the students looked fun, interesting and enjoy the teaching learning about grammar by using Bingo game. Based on the result of pre-test and post-test from the students, it indicated that the score of post-test was higher than pre-test. It means that there was improvement score from the students after they were taught by using Bingo

game. When the researcher taught grammar skills especially on past tense to the students, they look more excited, enjoy, and understand the how to change the verb from infinitive to the past tense verb easily by using Bingo card. Vernon, as cited from Shaheen Ara (2009: 166) states that:

> "Just like songs and rhymes, games also provide wonderful atmosphere in the children's language class. It is widely documented that English language games improve learning, and with children, they are one of the most effective classroom tools."

Besides the increasing of the students' score of grammar, from the Bingo game the students can change the verb from the infinitive form become past tense verb well. After they change the verb correctly, they also can make the sentence based on the verb that they changed correctly into positive, negative, and interrogative sentence orally in front of the class.

Based on the analysis above, teaching English grammar by using Bingo game was effective in increasing grammar mastery in junior high school. From the result of data analysis, there was any significant different score of students' grammar before and after they were taught by Bingo game. The treatment that was using Bingo game in teaching grammar gave effect in grammar mastery of the students because the treatment was given in many times, it makes the students understand the material and the students' score was increase. It can be concluded that the use of Bingo game was effective toward grammar mastery of the eighth graders at MTsN Tulungagung in the academic year 2016/2017.