

## **CHAPTER IV**

### **RESEARCH FINDINGS AND DISCUSSION**

In this chapter presents the findings as the result of analyzing data. It discussed Data Description, Hypothesis Testing, and discussion.

#### **A. Data Description**

In this chapter the researcher want to know the effectiveness of English Grammar Application in teaching Simple Past Tense in the first grade students in Islamic Senior High School by conducting pre-test and post-test. It was given to X-MIA I as experimental group consist of 40 students and X MIA II as control group consist of 38 students.

The test were multiple choices to the both of classes. In experimental class the researcher gave 30 questions in form of paper-based test. In control group the researcher also gave the students 30 questions in form of paper based test too. The pre-test conducted before the treatment were given. The result of pre -test showed the students achievement in grammar especially in Simple Past Tense.

After the pretest finished, the researcher gave treatment to the experimental class. The researcher did not give treatment to the control class. When the treatment were running, the students were very curious to follow the learning process. They looked so interested with the treatment that the researcher gave.

To describe the data, the writer showed the criteria of students score. The criteria of the score as follow:

Table 4.1 Criteria of the Score

No.	Qualification	Range of score
1	Excellent	100-85
2	Good	84-70
3	Average	69-55
4	Poor	54-50
5	Very Poor	49-0

The writer gave the posttest with different format. In control class the researcher asked the student to do the test inform of paper-based test. It means that the student had to answer the 30 question by answering the answer sheet with pencil. The other hand, in experimental class the writer asked the students to do the test in the application. The students score in pre-test and post test were presented as follow:

### 1. The students' score in Experimental class

#### a. Pre-test of Experimental Class

The pre-test was done January, 8<sup>th</sup> 2019. Experimental class is class which got treatment by using English grammar application in teaching Simple Past Tense of the first grade student in Islamic Senior High School Kota Blitar. The subject of the study consists of 40 students in X MIA I class. The highest score was 80 and the lowest score was 40. By using SPSS, it was known that the mean of students score in pre test was 70,26 and the mode was 70, the median was 70.

Table 4.2 Descriptive statistic of Experimental pre-test

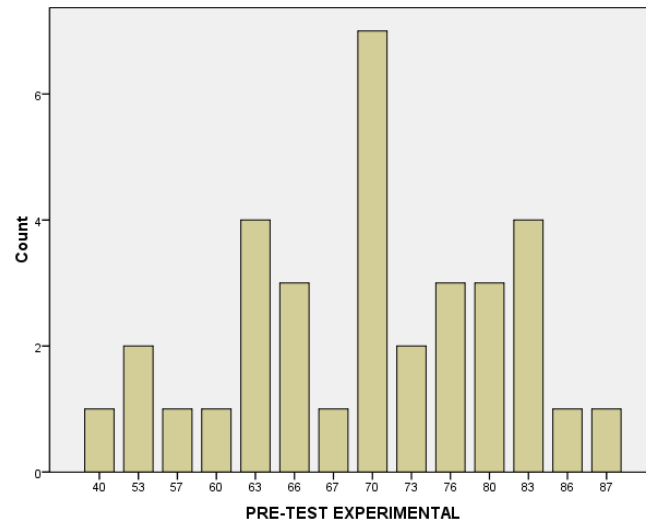
**Statistics**  
**PRE-TEST EXPERIMENTAL**

N	Valid	34
	Missing	5
Mean		70.26
Median		70.00
Mode		70
Minimum		40
Maximum		87

Table 4.3 Frequency of Experimental Pre test

**PRE-TEST EXPERIMENTAL**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	40	1	2.6	2.9	2.9
	53	2	5.1	5.9	8.8
	57	1	2.6	2.9	11.8
	60	1	2.6	2.9	14.7
	63	4	10.3	11.8	26.5
	66	3	7.7	8.8	35.3
	67	1	2.6	2.9	38.2
	70	7	17.9	20.6	58.8
	73	2	5.1	5.9	64.7
	76	3	7.7	8.8	73.5
	80	3	7.7	8.8	82.4
	83	4	10.3	11.8	94.1
	86	1	2.6	2.9	97.1
	87	1	2.6	2.9	100.0
	Total	34	87.2	100.0	
Missing	System	5	12.8		

**Figure 4.1 Histogram of Experimental Pretest Score**

b. The students' score in Post Test

The post-test was done in January, 29<sup>th</sup> 2019. The subject of post-test consist of 38 students. the highest score was 100. The lowest score was 83. By using SPSS the researcher knew the mean of students score was 97,09 the mode was 100, and the median was 100.

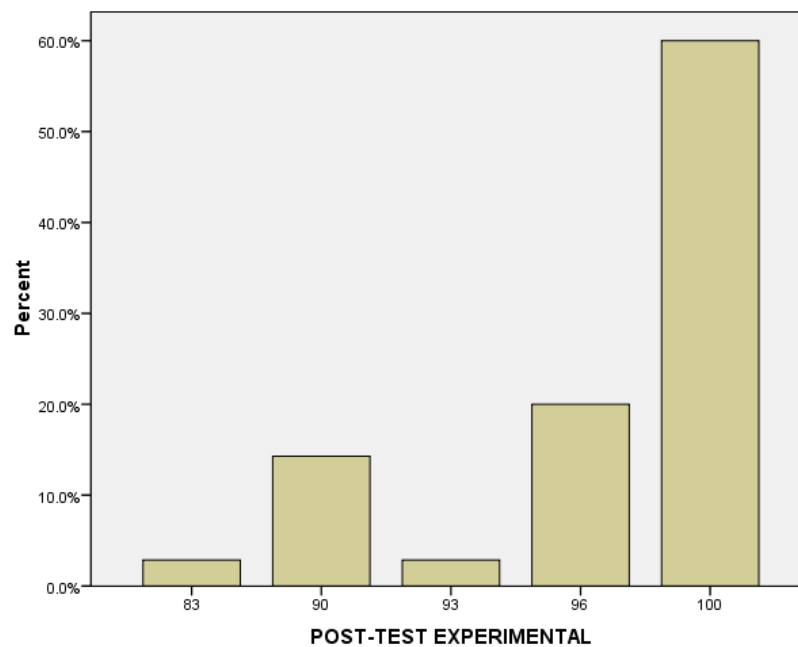
Table 4.4 Descriptive Statistic Of Experimental Post Test

POST-TEST EXPERIMENTAL		
N	Valid	35
	Missing	4
Mean		97.09
Median		100.00
Mode		100
Minimum		83
Maximum		100

Table 4.5 Frequency Experimental Post Test

<b>POST-TEST EXPERIMENTAL</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	83	1	2.6	2.9	2.9
	90	5	12.8	14.3	17.1
	93	1	2.6	2.9	20.0
	96	7	17.9	20.0	40.0
	100	21	53.8	60.0	100.0
	Total	35	89.7	100.0	
Missing	System	4	10.3		
Total		39	100.0		

Figure 4.2 Histogram of Experimental Pretest Score



## 2. The students' score in Control class

### a. Pre-test of Control class

Pre-test class is a class which was given a treatment in teaching simple past tense but the students do not get the treatment with application. the researcher

used conventional method in learning process. The students followed the rule of learning process without English Grammar Application. the subject was students in X MIA 2. The students consists of 38 students. the highest score was 66 the lowest score was 13. The means of students score was 45,32, the median was 47, and the mode was 50. For the detailed score of students pre-test in experimental group, the researcher use SPSS as follows:

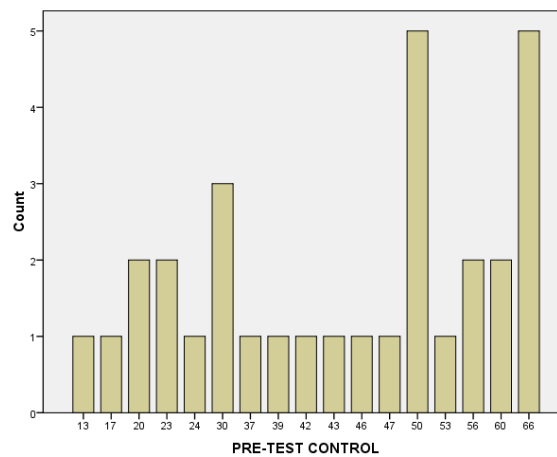
Table 4.6 Descriptive Statistic Of Control Pre-Test

PRE-TEST CONTROL		
N	Valid	31
	Missing	6
Mean		43.52
Median		47.00
Mode		50 <sup>a</sup>
Minimum		13
Maximum		66

**Table 4.7** Frequencies of Control pre test**PRE-TEST CONTROL**

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	13	1	2.7	3.2	3.2
	17	1	2.7	3.2	6.5
	20	2	5.4	6.5	12.9
	23	2	5.4	6.5	19.4
	24	1	2.7	3.2	22.6
	30	3	8.1	9.7	32.3
	37	1	2.7	3.2	35.5
	39	1	2.7	3.2	38.7
	42	1	2.7	3.2	41.9
	43	1	2.7	3.2	45.2
	46	1	2.7	3.2	48.4
	47	1	2.7	3.2	51.6
	50	5	13.5	16.1	67.7
	53	1	2.7	3.2	71.0
	56	2	5.4	6.5	77.4
	60	2	5.4	6.5	83.9
	66	5	13.5	16.1	100.0
	Total	31	83.8	100.0	
Missing	System	6	16.2		
Total		37	100.0		

**Figure 4.3 Histogram of Control Pretest Score**



b. Post test control class

Administering post test in control class was done to know the improvement of students achievements in using Simple Past Tense. The subject was students in X MIA 2 with 38 students. the post-test was done on January, 29<sup>th</sup> 2019. The highest score was 96 the lowest score was 50. By using SPP it was known that the mean was 67,82 the mode was 50 and the median was 66.

Table 4.8 Descriptive Statistics of Control Post Test



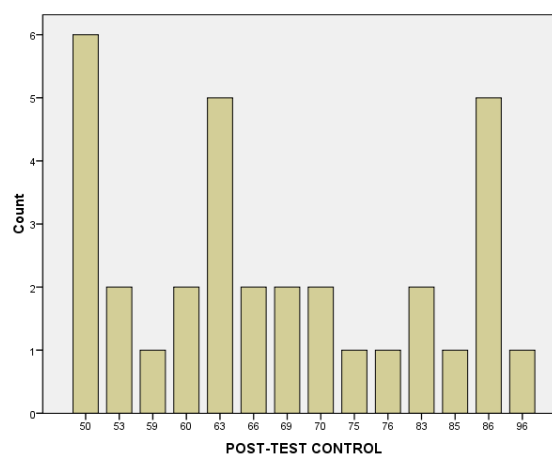
## POST-TEST CONTROL

N	Valid	33
	Missing	5
Mean		67.82
Median		66.00
Mode		50
Minimum		50
Maximum		96

Table 4.9 Frequency of Control Post Test

		<b>POST-TEST CONTROL</b>			
		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	50	6	15.8	18.2	18.2
	53	2	5.3	6.1	24.2
	59	1	2.6	3.0	27.3
	60	2	5.3	6.1	33.3
	63	5	13.2	15.2	48.5
	66	2	5.3	6.1	54.5
	69	2	5.3	6.1	60.6
	70	2	5.3	6.1	66.7
	75	1	2.6	3.0	69.7
	76	1	2.6	3.0	72.7
	83	2	5.3	6.1	78.8
	85	1	2.6	3.0	81.8
	86	5	13.2	15.2	97.0
	96	1	2.6	3.0	100.0
		Total	33	86.8	100.0
Missing	System	5	13.2		
Total		38	100.0		

Figure 4.4 Histogram of Control Posttest Score



### 3. The difference of statistical Data in posttest of Control and Experimental Class

Based on the result of students score in pretest between control group and experimental group were normal. The researcher only compared the students score of post-tests. The result of statistical calculation will be shown as follow:

Table 4.10 Descriptive Statistic of control and experimental group

Statistics		EXPERIMENTAL	CONTROL
N	Valid	35	33
	Missing	5	7
Mean		97.09	67.82
Median		100.00	66.00
Mode		100	50
Minimum		83	50
Maximum		100	96

Based on the table above, it can be seen the differences students score of control group and experimental group. the mean highest score was 96, the lowest score was 50. The mode of control class post test was 50, the median was 66 and the mean was 67,82. While, in experimental group the highest score was 100, and the lowest score was 83 and the highest score was 100. The mean of experimental class was 97,09, while the median and mode was 100 at all.

The result showed that the experimental class or the class who get the treatment by using English Grammar Application was higher than the

group without the treatment. There was significance difference of the student's score in the test between group who get the treatment and the other one without treatment. In other hand, the use of English Grammar Application is effective to teach Simple Past Tense in first grade students of Islamic Senior High School Kota Blitar in academic year 2019/2020.

In this research, the researcher used SPSS to know the effectiveness of English Grammar Application in teaching Simple Past Tense of X MIA I and X MIA 2 in Islamic Senior High School Kota Blitar in academic year 2019/2020. These subjects were referred as independent because they were independently from different subject. The result would be shown as follow:

Table 4.11 Group Statistic of Two Group

students score

<b>group</b>	<b>Mean</b>	<b>N</b>	<b>Std. Deviation</b>	<b>Std. Error of Mean</b>
TREATMENT	97.09	35	4.382	.741
CONTROL	67.82	33	13.694	2.384
Total	82.88	68	17.789	2.157

Based on the table above showed the students score who were taught by using English Grammar Application as Experimental group and the students without English Grammar Application as control group. the output showed that the mean of control class was 67,82 and the mean of experimental class was 97,09. The member of students (N) is the control class was 33 and the member of

experimental class was 33. Standard deviation of control class is 13,694 and the error was 3,384. While the standard deviation of experimental class was 4,382 and the error was 0,741.

## B. Hypothesis Testing

The hypothesis testing of this research are as follows:

1. If  $P\text{-value} < \alpha$ ,  $H_0$  is rejected

It means that there are significance differences between experimental class and control class or the English Grammar application is effective to teach Simple Past Tense in Islamic Senior High School Kota Blitar in academic year 2018/2019.

2. If  $P\text{-value} \geq \alpha$ ,  $H_0$  is not rejected

It means that there is no significance differences between experimental class and control class. The English Grammar application is not effective to teach Simple Past Tense in Islamic Senior High School Kota Blitar in academic

To know whether the P-value bigger or smaller than  $\alpha$ , the researcher analyzed the data by using SPSS.

Table 4.12 The result of Analyzing Independent sample T Test

### Group Statistics

	group	N	Mean	Std. Deviation	Std. Error Mean
students score	TREATMENT	35	97.09	4.382	.741
	CONTROL	33	67.82	13.694	2.384

Table 4.13 The Result of Analyzing Independent Sample 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	
Nil Equal ai varianc es assume d  Equal varianc es not assume d	37.044	.000	12.013	66	.000	29.268	2.436	24.403	34.132	
			11.725	38.141	.000	29.268	2.496	24.215	34.320	

On the table show the result that the P-value or sig was 0,000 and it is smaller than 0,005. In consequence the null hypothesis is rejected. On the basis of statistical calculation, in can be stated that the English Grammar Application is effective to teach Simple Past Tense on the first Grader of Islamic Senior High School Kota Blitar in academic year 2018/2019.

## C. The Result of Normality and Homogeneity Testing

### 1. The Result of Normality Testing

Normality testing is 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 ( $\alpha$ ) = 0.050. The result can be seen in table below:

**Table 4.14** Normality Testing

#### One-Sample Kolmogorov-Smirnov Test

		Pretest	Posttest	Unstandardized Residual
N		29	29	29
Normal Parameters <sup>a</sup>	Mean	63.79	78.10	.0000000
	Std. Deviation	13.070	12.278	13.05544070
Most Extreme Differences	Absolute	.163	.182	.147
	Positive	.163	.137	.147
	Negative	-.131	-.182	-.128
Kolmogorov-Smirnov Z		.879	.980	.794
Asymp. Sig. (2-tailed)		.422	.292	.554
a. Test distribution is Normal.				

a.  $H_0$ : Data is in normal distribution

b.  $H_1$ : Data is not in normal distribution

The standard significant of education is 0.05 ( $\alpha = 5\%$ ). To determine data was normal distribution or not it can be seen from the result of data normality testing. Based on the output from SPSS above is known that the significance value from pre-test was 0.879 and from the post-test was 0.980. Both value from pre-test and post-test were bigger than 0.05.

The sig/p value on pre-test is 0.879 and it is bigger than 0.05 ( $0.879 > 0.05$ ). It means that  $H_0$  is accepted and  $H_1$  rejected, so the data is in normal distribution. Then, for post-test score value of sig/p is 0.980 and that is bigger than 0.05 ( $0.980 > 0.05$ ). It also means that  $H_0$  is accepted and  $H_1$  is rejected and the data is in normal distribution. Thus, it can be interpreted that both of data (pre-test and post-test score) are in normal distribution.

## 2. The Result of Homogeneity Testing

Homogeneity testing is conducted to know whether the gained data has a homogeneous variance or not. To know the homogeneity, the researcher used *Test of Homogeneity of Variances* with SPSS 16.0 by the value of significance ( $\alpha$ ) = 0.050. The result can be seen below:

**Table 4.15 Homogeneity Testing**

### Test of Homogeneity of Variances

Pretest

Levene Statistic	df1	df2	Sig.
2.036	5	20	.117



- a.  $H_0$ : Data is homogeny
- b.  $H_1$ : Data is not homogeny

The standard significant of education is 0.05 ( $\alpha = 5\%$ ). Based on the output from SPSS above is known that the test called homogeny if the significant score more than 0.05. According to the table above, the test is homogen because  $0.117 > 0.05$  and it means that  $H_0$  is accepted and  $H_1$  is rejected. So, it can be conclude that students' of X MIA 2 has homogeny of variances.

#### **D. Discussion**

In this part, the researcher presents the discussion of analyzed data that has been presented in previous sub chapter.

Based on the analysis above, the posttest mean of control group was 67,82. While the students score mean in experimental group was 97,09. And the result show that P value or sig is smaller than  $\alpha$  (0,005). It indicated that after the researcher gave treatment to the experimental group, their score was really increase than before. During the treatment, the researcher saw they looked very curious with the application and their activity in class were only focused on the Application given.

Based on the research method is chapter III, the research conducted the quasi experimental research design named Nonrandomized control group design. The first step of those design was conducting the pretest to the both of control

group and experimental group. the test given consist of 30 question in form of paper-based test about simple past tense. The aim of pre-test was to know the students ability before got the treatment. The test was given to know the basic competence and to know their earlier knowledge.

After the pretest done, the researcher gave treatment to the both of group with different media. in the experimental group the researcher used English Grammar Application to teach the students. while in control group, the researcher used white board as the media of teaching and learning. It was really clear that the students who got the treatment feel very happy and enjoying the learning process because they used their own handphone for study. while, in the control class the students looked so calm and silent while the researcher delivers the material.

After the treatment finished, the researcher gave them the post test to the both of classes. The control group used paper based test, and the experimental group used English Grammar Application to take their score. The post-test was conducted on January, 29<sup>th</sup> 2019 in Islamic senior High School Kota Blitar.

In previous sub chapter, stated that the null hypothesis is rejected. It means that the English Grammar Application is effective to teach Simple Past Tense on the first grader on Islamic Senior High School Kota Blitar in academic year 2019/2020. In conclusion, it is very appropriate to use English Grammar Application in Teaching Simple past tense. Based on the research finding.

Bringgs stated that a tool that can deliver the instruction can be books, films, videotapes, etc. according to this study, an application in android is also a

tool that can be used to deliver the material to the students. the theory of Lesle J. Brings stated that he supports a handphone to be used in teaching and learning.

Another reasearch enitled Apps and EFL: a case study on the use of smartphone apps to learn English by four Japanese university Students found that mobile technologies can be used for English lerning with enjoy. Tis reseacrh shows soe evidence that apps can make the learner more intereting to study English. They also stated that mobile application also effective for autonomous learner. This finding is also same with the reasearch that has already conducted by the researcher here. The student be more competitive in learning process while use English Grammar Application. The students become more active when te researcher gave them question. It can be said that the use of application from smartphone is consider as effective in learning English.

However, the researcher still finds some students who are cheating in the class. Some students still open another application for their pleasure. Such as game, whatsapp, facebook, Instagram, etc. it can be raised from the students itself. If it was their habit, it is difficult to control their activity. In other hand, if the students are responsible with the learning process the handphone will give so many benefits for them.

This research related to the research from Nikmah. "*dampak penggunaan handphone terhadap prestasi belajar siswa*". This research found that the use of mobile phone in learning process is positive and negative. That all effect will occur depend on the student responsibility to the use of handphone. It is very important

to study using modern media to get more knowledge, but student have to be responsible too when using the handphone. Never use handphone for longer time so the time of study will be useless because of the use of handphone continuously.

The third journal entitled "*Pemanfaatan teknologi berbasis android sebagai media belajar matematika sekolah dasar*". The use of handphone as media for teaching and learning is also can be implemented in the students in elementary school. The students can learn math from their handphone by downloading the application from playstore. The students who need this application was students in the sixth grade who will prepare their national examination. The students can do the exercises everyday by using their own mobile phone.

There are two kinds of students in using of handphone. The first is students who can use the mobile phone to get more knowledge, and the other was the students who do not use the handphone in positive way. The use of handphone is not only for looking for the material. But also it can save the material such as the teacher's note in the white board can be captured to their mobile phone so the students do not need to rewrite it again in their book.