

## CHAPTER IV

### FINDINGS AND DISCUSSION

In this chapter, the researcher presents the finding and the discussion of the study. For main topics which being discussed in this part are the result of descriptive analysis, the result of inferential statistics analysis and discussion.

#### 4.1 The Results of Statistic Descriptive Analysis

In this section present the result of descriptive statistics such as mean, median, standard deviation, minimum score, maximum score and the sum of the scores.

##### 4.1.1. The Result of Descriptive Data Analysis of Pre-Test

Before treatment the researcher does a Pre-Test to know the students' achievement in Grammar especially Irregular Verb.

Then, the researcher obtained the data. The Pre-Test data were as

follow: **Table 4.1. Students' Score in Pre-Test**

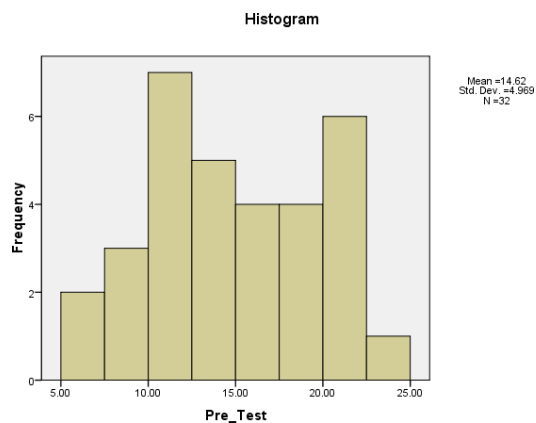
NO	Name	Score
1.	A.A.F.	11
2.	A.L.P.F.	7
3.	A.Y.R.	19
4.	A.A.N.	13
5.	A.N.A.M.	21
6.	B.A.N.	10
7.	D.N.S.	11
8.	D.A.A.	12

9.	E.O.M.P.	9
10.	G.N.L.	19
11.	I.J.M	17
12.	K.S.K.P	18
13.	L.S.A.	14
14.	M.F.E	15
15.	M.H.	23
16.	M.S.A.S	11
17.	M.I.F.	8
18.	M.K.F.S.	14
19.	M.R.W.S	10
20.	N.L.A.	20
21.	N.H.	21
22.	N.L.	5
23.	R.A.S.R.	22
24.	R.A.C.	22
25.	R.R.D.J.	14
26.	R.G.F.	8
27.	S.P.S.	12
28.	S.A.N	13
29.	S.Y.	15

30.	S.T.Y.	15
31.	T.R.S.	19
32.	W.A.F.	20

In this research, the researcher used SPSS 16.0 version to know the descriptive statistic and the percentage of students' score of Pre-Test. The percentage will divide into five criterion, they are excellent, good, average, poor and very poor (table 3.3). The result of calculation as follow :

**Table 4.2. The Histogram Chart of Pre-tes**



**Table 4.3. The Descriptive Statistic of Pre-test**

### Statistics

**Table 4.4. The Frequency of Students' score in achieving about Grammar before using Johnny Grammar Word Challenge Application**

### Pre\_Test

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 5	1	3.1	3.1	3.1
7	1	3.1	3.1	6.2
8	2	6.2	6.2	12.5
9	1	3.1	3.1	15.6
10	2	6.2	6.2	21.9
11	3	9.4	9.4	31.2
12	2	6.2	6.2	37.5
13	2	6.2	6.2	43.8
14	3	9.4	9.4	53.1
15	3	9.4	9.4	62.5
17	1	3.1	3.1	65.6
18	1	3.1	3.1	68.8
19	3	9.4	9.4	78.1
20	2	6.2	6.2	84.4
21	2	6.2	6.2	90.6
22	2	6.2	6.2	96.9
23	1	3.1	3.1	100.0
Total	32	100.0	100.0	

From the table 4.4., frequency of Pre-Test after being distributed there was 1 student who got the scores between 1-5 which meant that the students' achievement in grammar is very poor. The students that get the score between 6-10 are 6 students

which meant that the students' achievement in grammar is poor. The students that get the scores between 11-15 are 13 students which meant that the students' achievement in grammar is average. The students that get score between 16-20 are 7 students which meant that the students' achievement in grammar is good. The students that get score between 21-25 are 5 students which meant that the students' achievement in grammar is excellent.

#### **4.1.2. The Result of Descriptive Data Analysis of Post-Test**

After treatment the researcher does a Post-Test to know the students' achievement in Grammar especially Irregular Verb after they taught by using Johnny Grammar Word Challenge Application. Then, the researcher obtained the data. The Post-Test data were as follow:

**Table 4.5. Students' Score in Post-Test**

<b>NO</b>	<b>Name</b>	<b>Score</b>
1.	A.A.F.	16
2.	A.L.P.F.	6
3.	A.Y.R.	24
4.	A.A.N.	20
5.	A.N.A.M.	24
6.	B.A.N.	18
7.	D.N.S.	10
8.	D.A.A.	20
9.	E.O.M.P.	18

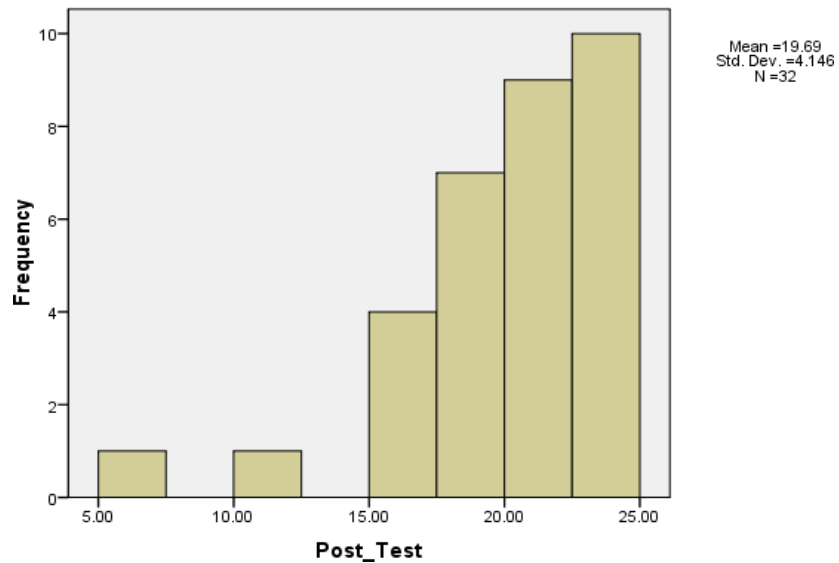
10.	G.N.L.	22
11.	I.J.M	23
12.	K.S.K.P	24
13.	L.S.A.	20
14.	M.F.E	21
15.	M.H.	23
16.	M.S.A.S	19
17.	M.I.F.	16
18.	M.K.F.S.	20
19.	M.R.W.S	18
20.	N.L.A.	24
21.	N.H.	23
22.	N.L.	15
23.	R.A.S.R.	21
24.	R.A.C.	24
25.	R.R.D.J.	19
26.	R.G.F.	15
27.	S.P.S.	19
28.	S.A.N	20
29.	S.Y.	19
30.	S.T.Y.	22
31.	T.R.S.	24
32.	W.A.F.	23

In this research, the researcher used SPSS 16.0 version to know the descriptive statistic and the percentage of students'

score of Pre-Test. The percentage will divide into five criterion, they are excellent, good, average, poor and very poor (table 3.3).

The result of calculation as follow :

**Table 4.6. The Histogram Chart of Post-Test**  
Histogram



**Table 4.7. Descriptive Statistic of Post-test**

**Statistics**

Post\_Test

N	Valid	32
	Missing	0
Mean		19.6875
Std. Error of Mean		.73292
Median		20.0000
Mode		24.00
Std. Deviation		4.14602
Variance		17.190
Range		18.00
Minimum		6.00

Maximum	24.00
Sum	630.00

Based on the table 4.7.above it showed that the mean of Pre-test was 19.6875. Mean is the average value from the Pre-Test score. Median was 20, median is the halfway point of a data set. Mode was 24, mode is the most frequently occurring data values in a data set. The standard deviation was 4.14602, standard deviation is the average of the deviation of scores toward the mean. Minimum score of Post-Test was 6, maximum score of Post-Test was 24 and the sum of Pre-test was 630.00.

**Table 4.8. The Frequency of Students' score in achieving about Grammar after using Johnny Grammar Word Challenge Application**

Post Test				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 6	1	3.1	3.1	3.1
10	1	3.1	3.1	6.2
15	2	6.2	6.2	12.5
16	2	6.2	6.2	18.8
18	3	9.4	9.4	28.1
19	4	12.5	12.5	40.6
20	5	15.6	15.6	56.2



21	2	6.2	6.2	62.5
22	2	6.2	6.2	68.8
23	4	12.5	12.5	81.2
24	6	18.8	18.8	100.0
Total	32	100.0	100.0	

From the table 4.8., frequency of Post-Test after being distributed there was no students who get the score between 1-5 which meant that the students' achievement in grammar is very poor. The students that get the score between 6-10 are 2 students which meant that the students' achievement in grammar is poor. The students that get the scores between 11-15 are 2 students which meant that the students' achievement in grammar is average. The students that get score between 16-20 are 14 students which meant that the students' achievement in grammar is good. The students that get score between 21-25 are 14 students which meant that the students' achievement in grammar is excellent.

## **4.2. The Result of Inferential Statistic Analysis**

In this section present the results of data Analysis, covering normality testing result, the result of t-test analysis and hypothesis testing.

### **4.2.1. Normality Testing Result**

Normality testing is used to know whether the distribution of the test is normal or not. If the data of test is normal distribution, the data

could be considered to represent the population, as the prerequisite of using t-test as the technique of hypothesis testing. The researcher used SPSS 16.0 to measure the normality of the test. The researcher uses One Sample Kolmogrov method. If the significance value  $> 0.05$  the data had normality distribution but if the significance value  $< 0.05$  the data did not have normal distribution.

**Table 4.9. Normality Result**

**One-Sample Kolmogorov-Smirnov Test**

		Pre_Tes t	Post_Te st
N		32	32
Normal Parameters <sup>a</sup>	Mean	14.6250	19.6875
	Std. Deviation	4.96926	4.14602
Most Extreme Differences	Absolute	.123	.154
	Positive	.095	.149
	Negative	-.123	-.154
Kolmogorov-Smirnov Z		.697	.874
Asymp. Sig. (2-tailed)		.71	.43
		7	0

a. Test distribution is Normal.

Based on the table 4.9, it shows that the significant value of Pre-Test is 0.717 ( $0.717 > 0.05$ ) and the value of Post-Test is 0.430 ( $0.430 > 0.05$ ). So, the value of Pre-Test and Post-Test is higher than 0.05, it means that  $H_a$  is accepted and  $H_0$  is

rejected. It means that the pre-test and post-test scores had a normal distribution because the value both of them are higher than

0.05. The value of Pre-Test is 0.717 ( $0.717 > 0.05$ ) and the value of Post-Test is 0.430 ( $0.430 > 0.05$ ).

#### **4.2.2 The Result of t-Test Analysis**

The researcher conduct Hypothesis testing whether to know the difference achievement of the students in class X IPA 1 at SMAN 1 Tulungagung academic year 2019/2020 before and after teaching Irregular verb by Using Johnny Grammar Word Challenge. From the table 4.1., there were 32 students as sample of this research, to keep the privacy of the students the researcher mentioned by using initial named.

In this research, the researcher gave a test to the students before being taught by using Johnny Grammar Word Challenge Application. The test total of the test are 25 questions, that consist of 5 multiple choices and 20 short answers.

After the data analysis done, the researcher uses paired sampled t-test by using SPSS 16.0 whether to analyze the finding data. The researcher uses Paired Sample T-Test because the data distribution was normal. The result can be seen in table 4.10 below:

**Table 4.10 Descriptive Statistic for Pre-Test and Post-Test**

**Paired Samples Statistics**

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Pre_Test	14.6250	32	4.96926	.87845
Post_Test	19.6875	32	4.14602	.73292

**Paired Samples Correlations**

**Paired Samples Correlations**

	N	Correlation	Sig.
Pair 1 Pre_Test & Post_Test	32	.800	.000

**Paired Sample T-Test**

**Paired Samples Test**

	Paired Differences				t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
				Lower			

**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 Pre_Test1 - Post_Test	5.06250	2.98315	.52735	-6.13804	3.98696	-9.600	31	.000

Based on the table 4.10 the t was -9.600, with the df = 31 and the sig value (two tailed) was 0.000 Given that the current test was one-tailed test, so the Sig value 0.000 be divided by 2 = 0 .The significance level was 0.05.

#### 4.2.3. Hypothesis Testing

From the data analysis before, it could be identify that :

1. If sig. value  $\leq 0.05$ , the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. It means that there is significant different students' score in achieving grammar at the tenth grade of SMAN 1 Tulungagung before and after being taught by using Johnny Grammar Word Challenge Application.
2. If sig. value  $> 0.05$ , the null hypothesis ( $H_0$ ) is accepted and the alternative hypothesis ( $H_a$ ) is rejected. It means that there

is no significant different students' score in achieving grammar at the tenth grade of SMAN 1 Tulungagung before and after being taught by using Johnny Grammar Word Challenge Application.

We can conclude that, based on the table 4.10 the sig value (two tailed) was 0.000. Given that the current test was one-tailed test, so the Sig value 0.000 be divided by 2 = 0. It means that  $H_0$  is rejected and  $H_a$  is accepted because  $0 < 0.05$  (0 is smaller than 0.05). So, Johnny Grammar Word Challenge Application is effective to enhance the students' grammar achievement especially in Irregular Verb.

#### **4.3. Discussion**

After the researcher did many activities for this research, in this part the researcher want to review the result of this research. On the output of paired sample test after calculated the data, it showed sig value (Sig. 2 tailed) was 0.000. Given that the current test was one-tailed test, so the Sig value 0.000 be divided by 2 = 0 from comparing with the standard level of significance (0.05). It means that alternative hypothesis ( $H_a$ ) was accepted and null hypothesis ( $H_0$ ) was rejected ( $0 < 0.05$ ). It can be conclude that there was significant difference of students' score in achieving Irregular verb before and after they used Johnny Grammar Word Challenge Application .

After getting the treatment, the students got the higher score than before they getting the treatment by using Johnny Grammar Word Challenge Application. It can be conclude that Johnny Grammar Word Challenge Application can enhance the students' grammar achievement especially in Irregular Verb at the tenth grade of SMAN 1 Tulungagung academic year 2019/2020. Based on the mean of the pre-test is 14.6250 and the post-test is 19.6875. The mean after treatment was greater or bigger than the mean before treatment. Johnny grammar Word Challenge application gives many benefits for the students. They interest to study grammar by using this application. So, they follow the class enjoyed and happily.

Regarding the result of the data analysis above, it is also strongly with previous study as stating that Johnny Grammar Word Challenge is effective to improve students' grammar. Azizatul Mahfida Inayati (2016) this research uses the classroom action research was conducted in two cycles. Each cycle consisted of: planning, implementing, observing, and reflecting. There were two kinds of data, qualitative and quantitative.

The result of the research showed that Johnny Grammar's Word Challenge activities through STAD could enhance the students' grammar in writing and class situation. Through Johnny Grammar Word's Challenge activities through STAD, the students showed their improvement in grammatical aspects in writing aspect, they are: verbal

and nominal sentence, pronoun, modal, possession, adjective and adverb. Meanwhile the improvement of class situation was indicated from positive interaction among the teacher and students, mutual respect and contribution, peer collaboration, and classroom talk practiced by students.

In conclusion, implementing Johnny Grammar Word's Challenge activities through STAD can enhance the students' grammar in writing in descriptive text and class situation at the 8<sup>th</sup> grade students of Junior High School. In other words, this application gives benefit for students to achieve better result in grammar in writing and make them interested in grammar in writing class.

Second, Azizatul Mahfida Inayati and Desy Damayanti (2016) This study aims to analyze the effectiveness of Johnny Grammar Word Challenge in improving students' grammar ability especially simple past tense in Junior High School level. The method used in this research is classroom action research (CAR). It is called so because it is a part of action research which is done in the classroom. The result of this study is the used of Johnny Grammar Word Challenge can improve the student's grammar ability especially simple past tense.

Based on the explanation above, it can conclude that Johnny Grammar Word Challenge was effective to be used to enhance the students' grammar achievement. In this research the researcher used



Johnny Grammar Word Challenge to enhance the students' grammar achievement especially in Irregular verb. The result of this study is Johnny Grammar Word Challenge effective to enhance the students' grammar achievement especially in Irregular verb at the tenth grade of SMAN 1 Tulungagung academic year 2019/2020