CHAPTER IV

RESEARCH FINDING AND DISCUSSION

A. Description of Data

In this research, the researcher employed a quantitative experimental data consist of data from class (VII-1) and controlled class (VII-2). The researcher administered two test, which was pre-test and post-test. The pre-test was given to gain the data of students' English score before the treatment was given to the students, while the post-test was administered to obtain the data of students' learning performance after the treatment.

1. Experimental Class

Based on the administering pre- test and post- test in experimental class, the experimental class that aim to assess the effect of an action or treatment on student behavior or test hypotheses about whether or not the action had effected when compared to other actions. The highest score of the pre-test gained by students was 75 and 90 fo post test in experimental class. The details of students' score of both pre-test and post-test could be seen as follows:

Table 4.1 Experimental Class Students' Scores

No	Student's Name	Experimental Class	
		Pre-Test	Post –Test
1.	ATA	60	80
2.	AAL	50	70
3.	AR	65	80
4.	CRP	60	75
5.	CC	75	90
6.	DN	70	85
7.	DP	50	65

8.	DSH	55	75
9.	MAYH	65	80
10.	MA	50	70
11	MJ	60	75
12.	MK	50	65
13.	MF	55	70
14.	MRA	60	70
15.	TR	60	80
16.	NW	70	85
17.	RNH	60	75
18.	RAN	75	80
19	RS	65	80
	Mean :	**60,78**	**76,31**
	Modus :	**60**	**80**
	Median :	**60**	**75**

From the table above mean, modus and median. They were pre-test and post-test, in pre test score mean class was 60.78, and post-test was 76.31. The most of the students got 60 scores for the pre-test and 80 for post-test in modus. Meanwhile, in the post-test the score was 80. It showed that from 19 students, 6 students got 60 in the pre-test score, and 6 students got 80 score in post-test. It explain that from the result modus in pre-test and post-test is similar.

Median showed that in pre-test was from 19 students were 50,50,50,50,55,55,60,60,60,**60**,60,60,65,65,65,70,70,75,75. From the result that 60 scores was median. And post-test was from 19 students were 65,65,70,70,70,70,75,75,75,**75**,80,80,80,80,80,80,85,85,90, so 75 score was a median.

2. Controlled Class

The same test for both pre-test and post test as experimental class. it indicates that controlled class gained a lower score for both test as compred to experimental class. The increase of the score from pre-test to post-test also gained relatively small which was 11.95. The highest score of

controlled class pre-test gained by students was 60 and 90 for post-test. The details of students score of both pre-test and post-tets can be seen as bellow:

Table 4.2 Controlled Class Students' Scores

No	Student's Name	Controlled Class	
		Pre-Test	**Post -Test**
1.	ARS	50	65
2.	AK	60	70
3.	RRL	55	60
4.	SH	60	60
5.	SR	70	80
6.	SAG	75	75
7.	SK	60	65
8.	TAW	70	75
9.	SP	60	80
10.	PA	60	65
11	HA	70	90
12.	AH	75	80
13.	MSA	60	80
14.	MY	60	75
15.	UMH	50	80
16.	WW	65	70
17.	ZT	70	90
18	ZA	60	85
	Mean :	**62.77**	**74.72**
	Modus :	**60**	**80**
	Medain :	**60**	**75**

Based on the table 4.2 that explain that control class. And its expain that in mean score class pre-test was 62.77 and post-test was 74.72 in mean score. The most of the students got 60 scores for the pre-test and 80 for post-test in modus. Meanwhile, in the post-test the score was 80. It showed that from 18 students, 8 students got 60 in the pre-test score, and 5 students got 80 score sin post-test. It explain that from the result modus in pre-test and post-test is similar.

Table 4.3 Test of Normality

Kelas	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
PreTest Eksperimen	0,171	19	,147	0,920	19	0,114
Post Test Eksperimen	0,179	19	,112	0,946	19	0,334
Pre Test Control	0,255	18	,003	0,900	18	0,057
Post Test Control	0,159	18	,200(*)	0,940	18	0,295

Median is the middle number in a sorted, ascenting or descenting, list of numbers and can be more descriptive of that data set than average. Median showed that in pre-test was from 18 students were 50,50,55, 60,60,60,60,60,**60,60**,60,65,70,70,70,70,75,75, from the result that 60 scores was median. And post-test was from 18 students were 60,60,65,65,65,70,70,75,**75,75**,80,80,80,80,85,90,90, so 75 score was a median.

B. Data Analysis

1. Normality Test

Normality test aims to find out whether the data of two classes are normally distributed or not. In this research, the research used Lilliefors in SPSS v.25 to test the normality of both data. Furthermore, the normality test was tested for each pre test and post-test. The result of normality test can be seen below:

The significance of the normalcy may be seen from the data shown in table 4.3, which can be seen above. In light of the fact that the sample size for this investigation was lower than fifty, the normality data was obtained from Shapiro Wilk. Table 4.3 reveals that the significant value of the pre-test experimental class is 0.114, whereas the significant value of the pre-test control group

is 0.057. Additionally, the significance score shown in table 4.3 is greater than 0.05. After considering all of this information, one may reach the conclusion that the pre-test results for both the experimental class and the controlled class follow a normal distribution.

It was clear that the post-test score was not abnormal until it reached 4.3 and above. It shows that the significance of the post-test data for the experimental class is 0.334, whereas the significance of the post-test data for the controlled class is 0.295. As a result, one may reach the conclusion that the post-test results for both the experimental class and the controlled class follow a normal distribution. The information on the normality test that was performed on the frequency distribution of pre-test and post-test scores in experimental and controlled classes can be found in appendix iv, which was provided by the researcher.

2. Homogeneity Test

The researcher also checked to see whether the results they collected were consistent with one another. The researcher is using SPSS version 25 to conduct the Levene statistic test in order to check for normalcy. If the significant level of the data result is higher than 00.5, then the data will be classified as homogeneous, as can be seen in table 4.4, which is presented in the following manner:

Table 4.4 Test of Homogeneity of Pre- Test Score

Levene Statistic	df1	df2	Sig.
0,004	1	35	0,953

Table 4.4 above shows that the significance of pre-test in experimental and controlled classes is 0.953 in which is more than 0.005. It could be said that both experimental and controlled classes have the same variances and they are homogenous.

Table 4.5 Test of Homogeneity of Post-Test Score

Levene Statistic	df1	df2	Sig.
1,808	1	35	0,187

Table 4.5 above also shows that the significance of post-test in experimental and controlled classes is 0.187 in which it is more than 0.05. it could be said that both experimental and controlled classes have the same variances and they are homogenous.

3. t- *test*

After figuring out the normality and homogeneity of data, the researcher also used SPSS v.25 to calculate t-*test*. t-test aims to find out the significant difference between experimental and controlled classes. This research takes 5% (0.05) as the significance level for the t-*test* in which it would be used to knoe the real effect of Inquiry Learning Method on students' speaking skill the result of the t-*test* is presented below:

Table 4.6 The Result of t-*test* of Experimental and Controlled Classes Score

	Class	N	Mean	Std. Deviation	Std. Error Mean
Score	Post-Test Eksperimen	19	76,32	6,840	1,569
	Post-Test Control	18	74,72	9,310	2,194

Based on the table 4.7 indicates that there was a significant difference between experimental class and controlled class. It can be seen from the group statistics that present the

Table 4.7 The Result of t-*test* of Independence Sample 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	Lower	Upper	Lower	Upper	Lower	Upper	Lower
Score	Equal variances assumed	1,808	0,187	0,596	35	0,555	1,594	2,675	-3,838	7,025
	Equal variances not assumed			0,591	31,140	0,559	1,594	2,698	-3,908	7,095

mean (M) of experimental class which is 76.32 and 74.72 for controlled class. Furthermore, the standard deviation (SD) of gained score in experimental class is 2.67 while controlled class had 2.69

4. Hypothesis Test

The hypothesis test used in calculating the posr-test value is the independent samples t-t*est*. The result of the SPSS calculating obtained the value of sig. This is t-*test* criteria:

a. If the value of sig.<0.05, it is rejected, which means that there is an effect of inquiry learning method on students' speaking skill at seventh –grade in SMP Swasta Washliyani Medan.
b. If the value of sig.> 0.05, it is accepted, which means that there is no effect of the inquiry learning method on students' speaking skill at seventh-grade in SMP Swasta Washliyani Medan

To observe = 0.596 >ttable= 0.591, and the Sig. (2-tailed) is 0.000 0.05, according to the findings of a t-test performed on post-test data gathered from both an experimental and a controlled class setting. It is possible to draw the conclusion that tobserve>ttable, and the Sig. (2-tailed) value is less than 0.05. Consequently, the Ha is accepted, which indicates that the Inquiry Learning Method is successful in improving the students' ability to communicate orally.

5. Validity and Reability

Validity shows the extent to which the meansuring instrument is used to meansure what is being meansured. The method was correlated the scores obtained on each question item with the individual's total score and reability test was performed on question items that was declared valid. A variable was said to be reliable, if the answer to the question was always consistent. A significant test was needed to meansure the meaning of the correlation coefficient based on the normal curve distribution using the statistics with equalitions:

$$t = r_{xy}\sqrt{\frac{N-2}{1-r_{xy}2}}$$

Keterangan :

t : Coefficient value of validity or reability
r_{xy} : Reability correlation coefficient value
N : Total of sample.

Then the above result was compared to the t value of the table at the level of 95% confidence and the degree of freedom (dk) = N-2. If t-test>t-table then the coefficient of validity of realibility of the test was significant.

5.A t-*test* validity

$$t = r_{xy}\sqrt{\frac{N-2}{1-(r_{xy})^2}}$$

$$t = 0{,}64\sqrt{\frac{80-2}{1-0{,}41}}$$

$$t = 0{,}64\sqrt{\frac{78}{0{,}59}}$$

$$t = \mathbf{7{,}36}$$

Based on the value of the t-test validity of 7.36 ≥ t-table of 1.67 then the validity level of was significant effect using inquiry learning method on students speaking skill.

5.B t-test reability

$$t = r\sqrt{\frac{N-2}{1-(r)^2}}$$

$$t = 0{,}91\sqrt{\frac{80-2}{1-0{,}83}}$$

$$t = 0{,}91\sqrt{\frac{78}{0{,}17}}$$

$$t = \mathbf{19{,}49}$$

Basen on the value of t-test reability of 19.49 ≥ t-table by 1.67 then the reability level instrument was declared significant effect using inquiry learning method on students' speaking skill.

C. Discussion

This research was conducted to find out the effect of inquiry learning method on the students' speaking skills at seventh- grade in junior high school at SMP swasta Wahliani Medan. In this research, many samples were taken, there were 37 respondents, namely 18 for the control class and 19 for the experimental class.

The procedure that researchers carried out in this research was provide teaching using inquiry learning method on students' speaking skills. In the early stages of research, the researcher gave a pre-test question that aims to find out how much students' speaking skill using inquiry learning method related of pictures, when the pictures told about their daily activities based on the picture and than they told about their daily activity start from wake up until sleeping. In the next stage, the researcher gave post-test questions gave two pictures, the first picture is a persom was littering in the river and the second picture is the effect of littering in the river, so students should more active and critical thinkimg to fimd the solution. The procedure that the researcher did in this research was provide conventional teaching, then a final test (post-test) was given pre-test questions to determaine the basic abilities of students who were used as the control class. The pre-test given to the experimental class and control class is only a means of meansuring students' abilities before entering the material to be studied submitted by the researcher, so the value used in the calculation is the valu of the post-test.

Based on previous research, first the data obtained from the result of research conducted by Ulfa Wahdatul Laily entitled, " The Effectiveness of using Inquiry Method to the Second Grade Students at MTS Sunan Ampel Ringinrejo Academic Year 2011/2021" This result shows that the use of inquiry learning method could gave the effect on the students speaking skill. the score of speaking skill taught by teaching using inquiry method is bad. After getting treatment, the score is

good. It then happened that these two classes gave a quite significant difference of the post-test and pre-test score. So, it could be concluded that there is a significant effect of inquiry learning method on speaking skill in seventh grade at SMP Swasta Washliyani Medan.

Second, from thesis by Agresia Meirani Telaumbanua about "Effectiveness of Inquiry Based Learning Method to Increase Students Critical Thinking Speaking Skill SMA Parulian 2 Medan" this result shows that the use of inquiry learning method could gave the effect on students' speaking skill

Third, from thesis by Moh Ihda Fahmi Mahendra (2019) about "The Effectiveness of using Inquiry Method Toward Students' Speaking Achivement at the First Grade of MTSN 2 Tulungagung". This research could be prove from the result that the inquiry learning method there is a significant effect in students' speaking skill.

Therefore, from three related of studies that using inquiry learning method theren is effect. The implementation of the inquiry learning method on students' speaking skill. This can increase higher learning outcomes, one of which is by inquiry learning method on students' speaking skill so that students are motivated to learn and improve their learning outcomes in education with greater influence, especially in the field of speaking skill.