

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

This chapter describes about research findings and discussion that includes about the description of data, normality testing, hypothesis testing and discussion.

A. Research Findings

In this section, the researcher presented the data of students' speaking achievement before and after being taught by using inquiry method. In this research, the purpose of the researcher wanted to know the effectiveness of using inquiry method toward students' speaking achievement at the first grade of MTsN 2 Tulungagung in academic year 2018/2019. The researcher did pre experimental research design by using one group pre-test and post-test with quantitative research approach. Besides, the researcher involved VII F class which consisted of 36 students, 19 males and 17 female students as experiment and control class because the researcher was conducted pre experimental study so the researcher only used one class. Then, the researcher administered test as research instrument to get the data. The test items that had given to the students were oral test. To know students' speaking achievement, the researcher gave pre-test and post-test. In this research, the researcher was conducted in three meetings. First meeting was administering pre-test, second were giving treatment by using inquiry method to teach speaking, and the last was administering post-test. From pre-test and post-test

the researcher got a score from the students. The students' score then computed by using SPSS 25.0 versions. The form and the instruction of pretest and posttest are same, but it has different topic. Pre-test is a test that given to students before they get treatment. The purpose of pre-test is to know students' speaking achievement on writing before they get treatment.

The researcher gave treatment to students after conducted the pre-test. The researcher gave treatment by using inquiry method. In the beginning of the study, the researcher introduced about inquiry method to the students and explained the material about descriptive text. Then the researcher explained the steps of inquiry. For the example, formulate the problem, then the teacher asked the students to discuss in group. Next, the students can conduct observation by reading the books or other resources. It can help the student get good understanding, critical thinking and improve the speaking skills. So, the students can solve the problem by themselves.

After giving a treatment, the researcher conducted post-test. Post-test is a test that given to students after they get treatment. The purpose of post-test is to know students ability after they get a treatment. The result of post-test shows some students got high score. The final result of students' score from pre-test and post-test was analyzed using scoring rubric.

1. The Result of The Pre-Test Score From the Students Speaking Achievement Before Being Taught By Using Inquiry Method

In this part of this chapter, the researcher wants to know the students' score in speaking test before being taught by using inquiry

method. The pre-test was given by the researcher to the students to get score. The researcher presented the result of the pre-test that had been done before treatment. Pre-test was hold on April, 30th 2019. The test was speaking achievement test that was about descriptive text. This test was proposed to know the students' achievement before getting the treatment. The data of pre-test could be seen as follows:

Table 4.1 Students' Score before Being Taught by Using Inquiry Method

No	Students' Name	Pre-test Score
1	ARM	35
2	AR	30
3	APS	45
4	ACA	35
5	AFS	45
6	AAF	40
7	BIH	55
8	BKA	40
9	CPM	30
10	DNM	40
11	DHH	35
12	DNS	60
13	DMI	40
14	DAC	45
15	EPS	30
16	EAM	60
17	HM	30
18	MR	30
19	MNK	55
20	MAK	45
21	MDF	35
22	MIZ	45
23	MKA	55
24	MAA	45
25	MFA	50
26	MK	55
27	MNK	30

28	NIP	50
29	NAH	60
30	PKS	35
31	QAF	50
32	RAT	55
33	RMS	50
34	SD	30
35	STF	40
36	VQH	65
N=35/Total Score		Σ 1575
Mean		43.75

Table 4.1 presents the pre-test score list of 36 students at the first grade of MTsN 2 Tulungagung as the respondents or subjects of the research. The students' pre-test score was distributed in the next table in order to analyze the students' speaking achievement score before the treatment is given. Then, it was presented the statistical data of pre-test in the table below:

Table 4.2 The Statistics of Pre-test Score

Statistics		
pretest		
N	Valid	36
	Missing	0
Mean		43,75
Std. Error of Mean		1,741
Median		45,00
Mode		30
Std. Deviation		10,445
Variance		109,107
Range		35
Minimum		30
Maximum		65
Sum		1575

The table 4.2 above showed descriptive statistics of pretest score. It showed that there are 36 students. The highest score of pretest is 65, while the lowest score is 30. It shown the mean score of pre-test is 43.75. The median score is 45, the mode score is 30, the standard deviation is 10.445. While the variance is 109.107 and the range is 35.

After getting the statistical data, the researcher presented the table frequency of students' score in pre-test by using SPSS 25.0 version. The table can be seen in the table 4.3 as below:

Table 4.3 The Frequency of Students' Score in Pre-test

Pretest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30	7	19,4	19,4	19,4
	35	5	13,9	13,9	33,3
	40	5	13,9	13,9	47,2
	45	6	16,7	16,7	63,9
	50	4	11,1	11,1	75,0
	55	5	13,9	13,9	88,9
	60	3	8,3	8,3	97,2
	65	1	2,8	2,8	100,0
	Total	36	100,0	100,0	

Based on the table 4.3, the table frequency of pre-test after being distributed showed based on the categorizing of scoring rubric:

- a. There were 17 students who got score between 0-40, which means that the students' score in speaking achievement was poor.
- b. There were 18 students who got score between 41-60, which means that the students' score in speaking achievement was fair.

- c. There was 1 student who got score between 61-80, which means that the students' score in speaking achievement was average.

The researcher also presented a histogram based on the data on students' score in pre-test to make data were clear. The histogram of the result of pre-test score presented in figure 4.2 as below:

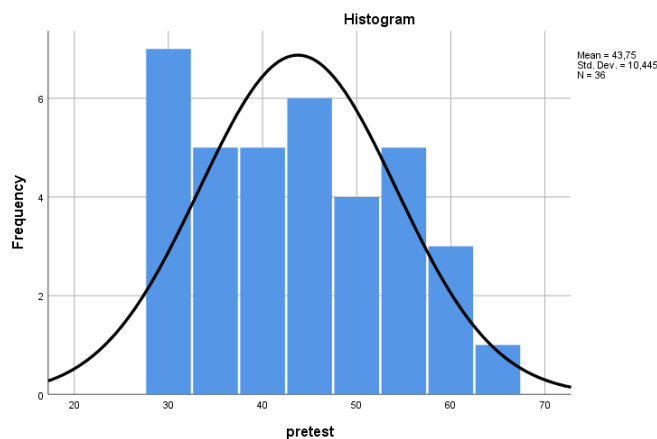


Figure 4.2 The Histogram of Students' Score in Pre test

Based on the students' score in pre-test, the researcher qualified their ability in to 4 categories; poor, fair, good, and very good. The categorization can be seen in the table 4.4 as below:

No	Grade	Qualification	Range of Score	Frequency
1	A	Very Good	81-100	0
2	B	Good	61-80	1
3	C	Fair	41-60	18
4	D	Poor	0-40	17

Based on the table 4.4 above, the result of categorization showed which 17 students who got score between 0-40, it meant that the students

in poor speaking achievement and 18 students who got score between 41-60, it meant that the students in fair speaking achievement and 1 students who got score between 61-80, it meant that the students in good speaking achievement. The result above showed that the students had fair speaking achievement, but some of them still in poor ability. It could be concluded that the students had to increase their speaking achievement.

2. The Result of The Post-Test Score From The Students Speaking Achievement After Being Taught By Using Inquiry Method

In this part of this chapter, the researcher wants to know the students' score in speaking test before being taught by using inquiry method. The post-test was given by the researcher to the students to get score. The researcher presented the result of the pre-test that had been done before treatment. Post-test was held on May, 3th 2019. The test was speaking achievement test that was about descriptive text. This test was proposed to know the students' achievement before getting the treatment. The data of post-test could be seen as follows:

Table 4.5 Students' Score after Being Taught by Using Inquiry Method

No	Students' Name	Post-test Score
1	ARM	50
2	AR	45
3	APS	55
4	ACA	50
5	AFS	60
6	AAF	45

7	BIH	65
8	BKA	50
9	CPM	45
10	DNM	60
11	DHH	40
12	DNS	65
13	DMI	45
14	DAC	55
15	EPS	45
16	EAM	70
17	HM	45
18	MR	40
19	MNK	75
20	MAK	55
21	MDF	50
22	MIZ	55
23	MKA	70
24	MAA	60
25	MFA	65
26	MK	60
27	MNK	55
28	NIP	60
29	NAH	75
30	PKS	45
31	QAF	55
32	RAT	60
33	RMS	55
34	SD	40
35	STF	50
36	VQH	75
N=35/Total Score		Σ 1990
Mean		55.28

Based on the table above, the post-test was followed by 36 students at the first grade of MTsN 2 Tulungagung as the respondents or subjects of the research. The highest score of post-test was 75 which were gotten by 3 students and the lowest score of post-test was 40 which were gotten by 3 students. The mean score of post-test was 55.28.

Table 4.6 The Statistics of Post-test Score

Statistics		
posttest		
N	Valid	36
	Missing	0
Mean		55,28
Std. Error of Mean		1,690
Median		55,00
Mode		45
Std. Deviation		10,138
Variance		102,778
Range		35
Minimum		40
Maximum		75
Sum		1990

The table 4.6 above showed descriptive statistics of pretest score. It showed that there are 36 students. The highest score of pretest is 75, while the lowest score is 40. It shown the mean score of pre-test is 55.28. The median score is 55, the mode score is 45, the standard deviation is 10.138, while the variance is 102. 778 and the range is 35.

Table 4.7 Frequency of Post-test Score

Posttest					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	40	3	8,3	8,3	8,3
	45	7	19,4	19,4	27,8
	50	5	13,9	13,9	41,7
	55	7	19,4	19,4	61,1
	60	6	16,7	16,7	77,8
	65	3	8,3	8,3	86,1
	70	2	5,6	5,6	91,7

	75	3	8,3	8,3	100,0
	Total	36	100,0	100,0	

Based on the table 4.7 above, the table frequency of post-test after being distributed showed based on the categorizing of scoring rubric:

- a) There were 3 students who got score between 0-40, which means that the students' score in vocabulary mastery was poor.
- b) There were 26 students who got score between 41-60, which means that the students' score in vocabulary mastery was fair.
- c) There were 7 students who got score between 61-80, which means that the students' score in vocabulary mastery was good.

The researcher also presented a histogram based on the data of students' score in post-test to make data were clear. The histogram of the result of pre-test score presented in figure 4.6 as below:

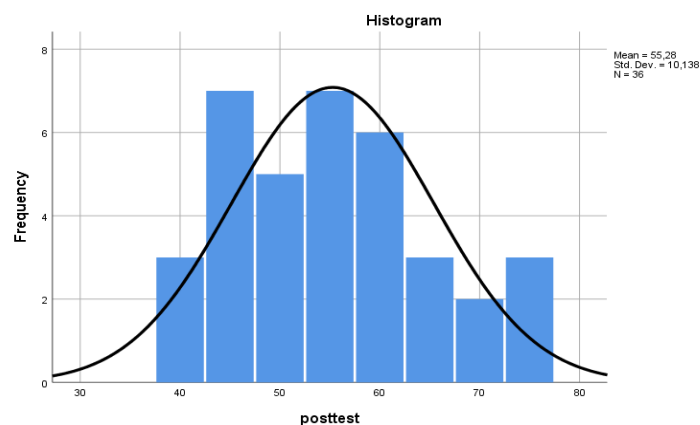


Figure 4.6 The Histogram of Students' Score In Post-test

Based on the students' score in post-test, the researcher qualified their ability in to 4 categories; poor, fair, good, and very good. The categorization can be seen in the table 4.8 as below:

No	Grade	Qualification	Range of Score	Frequency
1	A	Very Good	81-100	0
2	B	Good	61-80	7
3	C	Fair	41-60	26
4	D	Poor	0-40	3

Based on the table 4.8 above, the result of categorization showed which 3 students who got score between 0-40, it meant that the students in poor speaking achievement and 26 students who got score between 41-60, it meant that the students in fair speaking achievement and 7 students who got score between 61-80, it meant that the students in good speaking achievement. The result above showed that students' speaking achievement was increase from poor speaking achievement to fair speaking achievement and also to good speaking achievement after being taught by using inquiry method.

B. Discussion

In this research, a researcher conducted the research in one class during teaching and learning. The subject of this research was seven F which consisted of 36 students. The objectives were to find out the score of speaking especially students' speaking achievement at the first grade of MTsN 2

Tulungagung in academic year of 2018/2019 before and after being taught by using inquiry method and to find out whether there was significant different scores of students' speaking achievement before and after being taught by using inquiry method.

In teaching and learning process during research, the researcher was divided into three steps. First step was administering pre-test (speaking test). It was used to know the students' speaking achievement before being taught by using inquiry method. Then, the researcher gave treatment to the students, and the treatment was inquiry method. After students got treatment they were more active and enthusiastic to learn speaking. The third step was giving post-test after being taught by using inquiry method.

The researcher got the data from the score of pre-test and post-test. Then, the data analyzed by using paired sample t-test on SPSS 25.0 version for windows. From the data output of paired sample statistic presented that the mean of pre-test was 43.75 and the mean of post-test was 55.28. If compared differences both of the value was 11.53. It indicated that there were significant differences in students' speaking achievement because the mean of posttest was higher than the mean of pretest. It could be concluded that inquiry method was effective for teaching speaking achievement.

Furthermore, the data computation of T-test showed that the score of *P-value* (Sig.) was 0.000, and it was less than 0.05 ($0.000 < 0.05$) which meant the null hypothesis (H_0) was rejected and the alternative hypothesis (H_a) was accepted. In other words, the null hypothesis states that the mean of post-test

was smaller than or equal to the mean of pretest, it meant that was rejected. Then, the alternative hypothesis states that the mean of posttest was higher than the mean of the pretest, automatically the alternative hypothesis was accepted. It showed that there was significant difference score on students' speaking achievement at the first grade of MTsN 2 Tulungagung in academic year 2018/2019 before and after being taught by using inquiry method. In other words, inquiry method was effective to be used in teaching speaking. Teaching the process of inquiry is an opportunity for students to learn and practice skill associated with critical thinking especially in English. Indonesian students are mostly Non Native Speakers (NNS), they definitely face many problems, the use of Indonesian (Bahasa Indonesian) in daily activities influence their speaking skill in learning English (Nurhayati, 2016:207-211). The development of their speaking skill also influences their ability. Helping students develop the ability to think is receiving increased emphasis because of the realization that students will get benefit from being independent and reflective thinkers in the real social world (Douglas, 2000; 259). Inquiry is a helping for the students to be critical thinking to discuss student's problem solving, The students can create their skill to develop learning and it is one of the benefit from being reflective and being independent students.

Based on the result, it could be concluded that inquiry method was effective method especially for the first grade students of MTsN 2 Tulungagung, because it helps students to increase students' speaking

achievement knowledge and students' internal motivation in learning the English language. Using a dialect is a part of speaking and it is defined as a process of using verbal and non-verbal symbols in any context (Nurhayati, 2016:1-12). Seeing the fact that speaking as one of often becomes a difficult problem for students in conducting communication. Some difficulties which are faced by them such as first they feel shy, afraid of making mistakes, and get stumbling when they utter ideas. Besides that lack of curriculum emphasis on speaking skills such, teachers' limited English proficiency, class conditions do not favour oral activities, limited opportunities outside of class to practice, and examination system does not emphasize oral skills finally the supporting environment does not provide in conducting communication (Nurhayati, 2016: 52). Then, Speaking is the verbal use of language to communicate with other (Glenn Fulcher, 2003: 79). Through speaking, the students can be delivered about something that they want to extend like their ideas or feeling to their opponent. Based on that theory, the researcher implemented the use of cooperative learning inquiry method in teaching speaking, especially to tell about their personal information. Inquiry method can motivate students to express their opinion or say something because this method giving discussion session to share information during the learning process. Every student has a chance to speak, so there is no student dominated.

Based on the research finding, according to Wahidah (2012), inquiry method as teaching method is surely shows the real effectiveness, because by

using this method students feel comfortable at class. They are easy to conduct interaction, conversation, become active in speaking. They feel confidence. So, their oral skill is better. The results above Simply that the use of inquiry method gave positive effect to the students' speaking achievement during teaching and learning process. It has been verified by the result of data analysis that there was any significance difference students' score at the first grade of MTsN 2 Tulungagung who were taught before and after using inquiry method. It can be conclude that the use of inquiry method was effective to teach speaking at the first grade of MTsN 2 Tulungagung.

C. The Result of Normality and Homogeneity Testing

1. Normality Testing

Normality testing is used to determine whether the distribution of responses has a normal distribution or not. Normality test is intended to show that the sample data come from a normally distributed population . To test the normality of the data the reseracher used the *One Sample Kolmogrov-Smirnov* test with the provision that if Asymp. Sig<0.05, so the data distribution is normal. The researcher used students' scores of pre-test and post-test of seven F class of MTsN 2 Tulungagung in normality testing and calculated used *SPSS 25.0 for windows* by significant level (0.05). The data presented on the table 4.9. The hypothesis of normality testing as follows:

- a. H_0 : Data is in normal distribution

b. H_a : Data is not in normal distribution

After determining the hypothesis, the researcher used the rule of Asymp. Sig (2 tailed) to measure the normality testing. This rule was used to know the test distribution was normal or not. The interpretation of normality testing as follows:

- a) If Asymp. Sig (2 tailed) > 0.05 , so the data distribution is normal.
- b) If Asymp. Sig (2 tailed) < 0.05 , so the data distribution is not normal.

Table 4.9 The Students' Score of Pre-test and Post-test

No	Students' Name	Pre-test Score	Post-test Score
1	ARM	35	50
2	AR	30	45
3	APS	45	55
4	ACA	35	50
5	AFS	45	60
6	AAF	40	45
7	BIH	55	65
8	BKA	40	50
9	CPM	30	45
10	DNM	40	60
11	DHH	35	40
12	DNS	60	65
13	DMI	40	45
14	DAC	45	55
15	EPS	30	45
16	EAM	60	70
17	HM	30	45
18	MR	30	40
19	MNK	55	75
20	MAK	45	55
21	MDF	35	50
22	MIZ	45	55

23	MKA	55	70
24	MAA	45	60
25	MFA	50	65
26	MK	55	60
27	MNK	30	55
28	NIP	50	60
29	NAH	60	75
30	PKS	35	45
31	QAF	50	55
32	RAT	55	60
33	RMS	50	55
34	SD	30	40
35	STF	40	50
36	VQH	65	75
N=35/Total Score		Σ 1575	Σ 1990
Mean		43.75	55.28

Based on the table above, it showed that the total score of pre-test was 1.575. The mean of students' score of pre-test was 43.75. After post-test the total score showed was 1.990. The mean of students' score of post-test was 55.28. It meant that there were difference score from both of pre-test and post-test. It could be concluded that students' speaking achievement increased after was given treatment. To know the normality of the test, the result was shown as below:

The 4.10 The Normality Result of The Data

One-Sample Kolmogorov-Smirnov Test			
		Pretest	Postets
N		36	36
Normal Parameters ^{a,b}	Mean	43,75	55,28
	Std. Deviation	10,445	10,138
Most Extreme Differences	Absolute	,132	,122
	Positive	,132	,122

	Negative	-,109	-,072
Test Statistic		,132	,122
Asymp. Sig. (2-tailed)		,114 ^c	,191 ^c
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			

From the hypothesis for normality testing, the null hypothesis (H_0) is rejected when the significance value is lower than 0.05 ($\alpha = 5\%$). Based on the analysis of the output of normality testing by using *One-Sample Kolmogorov-Smirnov* shows that the value of Asymp. Sig (2 tailed) of pre-test was 0.114 and it was higher than 0.05 ($0.114 > 0.05$), so the test distribution is normal. Then, value of Asymp. Sig (2 tailed) of post-test was 0.191 and it was higher than 0.05 ($0.191 > 0.05$), so the test distribution is normal. It indicates that the H_0 rejected and H_a is accepted, the data is in normal distribution. It can be concluded that the data of post-test and post-test is in normal distribution.

2. Homogeneity Testing

Homogeneity testing is conducted to measure whether the data has homogenous variance or not. The researcher used Test of Homogeneity of variances with SPSS 25.0 by the value of significance (α) = 0.05. The result can be seen below:

Table 4.11 Homogeneity Testing

Levene Statistic	df1	df2	Sig.
,504	7	28	,823

From the result above showed that the test was homogeneity. The significant value was 0.823, it known that the significant value was more 0.05 ($0.823 > 0.05$). Because the data was normal distribution and homogeneity then, to test the hypothesis the researcher used parametric testing in term of Paired Sample T-Test by using SPSS 25.0 windows.

D. Hypothesis Testing

The hypothesis testing of this research examined the effectiveness of before and after by using inquiry method toward students speaking achievement at the first grade of MTsN 2 Tulungagung in academic year 2018/2019. The hypothesis which is examined in this research as follows:

1. $H_0: \mu_1 \leq \mu_2$ or the mean of post-test was smaller than or equal to the mean of the pre-test.

The null hypothesis (H_0) states that the students' speaking achievement after being taught using inquiry method is less than or equal to their speaking achievement before being taught using inquiry method.

2. $H_a: \mu_1 > \mu_2$ or the mean of post-test was higher than the mean of the pre-test.

The alternative hypothesis (H_a) states the students' speaking achievement after being taught using inquiry method is higher than their speaking achievement before being taught using inquiry method.

The computation used to know the effectiveness of inquiry method. However, to know whether there was significant different score of the students before the students were taught by using speaking achievement and

after the students were taught by using speaking achievement. These subjects were referred as paired because they are drawn from the same subject. The researcher used statistical test by using paired sample t-test on SPSS 25.0 to analyze the data. The result is as follow:

Table 4.12 Paired Sample Statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	43,75	36	10,445	1,741
	postets	55,28	36	10,138	1,690

Based on the table 4.11, the data presented students' score which were taught before and after by using inquiry method in speaking achievement. The output of paired samples statistics as descriptive statistic showed that the mean score of pre-test was 43.75 and the mean score of post-test was 55.28. The number of sample both of pre-test and post-test was 36. The standard deviation is to measure how much the variance of the sample. The standard deviation of pre-test was (10.445<43.75) and the standard deviation of post-test was (10.135<55.28). In other words, if the standard deviation was getting higher than the mean, it meant that the students' score of pre-test was heterogeneity and if the standard deviation was getting smaller than the mean, it meant that the students' score of post-test was homogeny. It could be concluded that the standard deviation of pretest and posttest was homogeny because there were difference value of standard deviation between pre-test and post-test. The standard error mean of pre-test was 1.741 and the standard

error mean of post-test was 1.690. It could be concluded that the mean or average score of the students in pre-test and post-test was different, the mean score of pre-test was less than the mean of post-test ($43.75 < 55.28$). Thus, there was increasing score from pre-test to post-test, so there was significant different score after the students being taught by using inquiry method.

Table 4.13 Paired Sample Test

Paired Samples Test									
		Paired Differences							
			Std. Devia	Std. Error	95% Confidence Interval of the Difference				
					Mean	tion			
Pair 1	pretest - postets	- 11,528	4,902	,817	- 13,186	-9,869	- 14,110	35	,000

Based on table 4.12, the output of paired samples test showed that the difference of the mean score between pre-test and post-test was -11.528. The standard deviation was 4.902. Standard error mean was 0.817. There are two values in confidence interval of the difference, for the lower difference was -13.186 and the upper difference was -9.869. The result of t was -14.110 with degree of freedom (df) was 35 and the Sig. (2-tailed) was 0.000.

In this research, the P-value (Sig.) is 0.000 and the significance level is 0.05, so the P-value (Sig.) is smaller than significance level ($0.000 < 0.05$). It indicated that the null hypothesis (H_0) is rejected. In other words, the hypothesis states that the mean of post-test is smaller than or equal to the mean of pre-test, while the alternative hypothesis (H_a) is accepted. It means

that the mean of post-test is higher than the mean of pre-test, so that there is any significance difference of students' score before and after being taught by using inquiry method. It can be concluded that inquiry method is effective strategy for teaching speaking at the first grade of MTsN 2 Tulungagung.