CHAPTER IV

RESEARCH FINDING AND DISCUSSION

In this chapter, the researcher presents and elaborates some research findings, normality and homogeneity testing, hypothesis testing, and discussion.

A. Research Findings

In this section, the researcher presents the data gained from the students' speaking score before and after being taught by using Inside Outside Circle (IOC) technique. As explained before, the data were gained from two kinds of test, they are pre-test and post-test. Both of the test were followed by the students of VIII-B class at MTs Sunan Kalijogo in which consist of 28 students. The result of students' test before and after being taught by using Inside Outside Circle (IOC) technique can be seen in the table 4.1, it is as follows:

Table 4.1 Students' Pre-test and Post-test Score

No.	Name	Pre Test (x)	Post Test (y)
1	AJ	5	9
2	AS	5	9
3	AN	8	12
4	AP	12	17
5	BAS	5	8
6	BRJ	8	12
7	DAT	8	12
8	EW	12	17

9	INI	8	12
10	IN	12	17
11	KW	8	12
12	KIP	5	9
13	LAT	8	12
14	MID	5	9
15	MSP	5	8
16	MAH	8	12
17	MIS	8	9
18	NW	5	9
19	RK	5	9
20	RA	8	12
21	SFI	12	17
22	SAM	12	17
23	SNF	5	8
24	SN	8	12
25	TDS	8	12
26	WP	5	8
27	ZDA	12	17
28	GPP	8	12

Based on the data above (table 4.1), the researcher gives table of qualification to categorize the students' achievement whether their speaking ability is good or not. They are as follows:

Table 4.2 Qualification

Standard of performance	
21 – 25	Excellent
16 – 20	Very good
11 – 15	Good
6 – 10	Fair
1 – 5	Poor

The table 4.2 above shows that the score (21 – 25) means the students' speaking performance is excellent, (16 – 20) means the students' speaking performance is very good, (11 – 15) means the students' speaking performance is good, (6 – 10) means the students' speaking performance is fair, and (1 – 5) means the students' speaking performance is poor.

The students' speaking performance belongs to excellent when they can use varied and very effective choice of vocabulary, can use appropriate generic structure of recount text without missing the aspect in their story, can use very clear pronunciation so very easy to understand, can speak fluently without any hesitations, and can use simple past tense and conjunction in telling the story and there is no mistake acceptable.

Then, very good performance in speaking can be achieved by the students when they are able to use effective choice of vocabulary, can use appropriate generic structure of recount text and only missing one aspect; orientation, event, reorientation in their story, can use clear pronunciation so

easy to understand, can speak with occasionally hesitant and can use simple past tense and conjunction in telling the story and almost no mistakes.

Whereas, good performance in speaking can be achieved by the students when they use adequate choice of vocabulary but there are some misuse of vocabulary, use almost appropriate generic structure of recount text and only missing one aspect; orientation, event, reorientation of their story, use adequate clear pronunciation, speak hesitantly because of rephrasing and searching for words, and use simple past tense and conjunction in telling the story but there are some mistakes.

The next, it will belong to fair if the students use limited vocabulary and still confused use of words and word forms, use less appropriate generic structure of recount text; orientation, event, reorientation, use unclear pronunciation and it is difficult to understand, speak in hesitancy and jerk frequently, and use simple past tense and conjunction in telling the story but there are many mistakes.

The last, it will belong to poor if the students use very limited vocabulary and very poor knowledge of words and word forms, use inappropriate generic structure of recount text; orientation, event, reorientation, use very poor pronunciation and it is frequently unintelligible, speak very slowly and uneven except for short or routine sentences, and they does not use simple past tense and conjunction so it is totally wrong.

Furthermore, the researcher provides the frequency and the percentage of the data on the table 4.1 that can be seen as in the following table.

Table 4.3 Frequency of Students' Score

No	Score	Fx	Fy
1	21 – 25	0	0
2	16 – 20	0	6
3	11 – 15	6	11
4	6 – 10	12	11
5	1 – 5	10	0
		$\sum X_1 = 28$	$\sum X_2 = 28$

Table 4.3 above shows that in pre-test there are ten students get poor score (1 – 5), twelve students get fair score (6 – 10), and six students get good score (11 – 15). Meanwhile, in post-test shows that there are eleven students get fair score (6 – 10), eleven students get good score (11 – 15), and six students get very good score (16 – 20). Those data indicate that their speaking ability improves after they got treatment by using Inside Outside Circle (IOC) technique. It is proven by the number of students who get very good score (16 – 20) has increased from 0 to be 6 students, students who get good score (11 – 15) has increased from 6 to be 11 students, students who get fair score (6 – 10) has decreased from 12 to be 11 students and there is no students who get poor score (1 – 5).

Further, the percentage of the students' pre-test and post-test score will be presented by the researcher on table 4.4 based on the formula below:

$$P = \frac{F}{N} \, x \, 100\%$$

Where:

P: percentage   *F*: frequency   *N*: total of students

Table 4.4 Percentage of the Students' Pre-test Score

Score	Fx	Percentage %
21 – 25	0	0%
16 – 20	0	0%
11 – 15	6	22%
6 – 10	12	43%
1 – 5	10	35%
	N = 28	P = 100%

From the result on the table 4.4 above, it can be seen that the percentage of the students who get poor score (1 – 5) is 35%, the students who get fair score (6 – 10) 43%, and the students who get good score (11 – 15) is 22%. It means that the percentage of students who get fair score is higher than others.

As explained before, the researcher also provides the percentage of students' post-test score in order to know the difference of the percentage of pre- test and post-test. It can be seen on the table below:

Table 4.5 Percentage of the Students' Post-test Score

Score	Fy	Percentage %
21 – 25	0	0%
16 – 20	6	22%
11 – 15	11	39%
6 – 10	11	39%
1 – 5	0	0%
	N = 28	P = 100%

From the result on the table 4.5 above, it can be seen that the percentage of the students who get very good score (16 – 20) is 22%, the percentage of the students who get good score (11 – 15) is 39%, and the percentage of the students who get fair score (6 – 10) is 39%. Those percentage numerals show that the students' score has increased after they got treatment by using Inside Outside Circle (IOC) technique. Therefore, the percentages and the criteria of students' pre-test (table 4.4) and post-test (table 4.5) score are different.

Both percentage table of students' pre-test and post-test score show that the percentage of the students who get very good score has increased from 0% to be 22%, the percentage of the students who get good score has increased also from 22% to be 39%, the percentage of the students who get fair score has decreased from 43% to be 39%, and the percentage of the students who get poor score has decreased from 35% to be 0%.

Further, the data (table 4.1) is analyzed by using SPSS 16.0 for windows to know whether there is significant difference between students' speaking achievement before and after being taught by using Inside Outside Circle (IOC) technique or not. The result of analysing the data of students' pre-test and post-test score can be seen in the following tables:

Table 4.6 Paired Samples Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	7.79	28	2.616	.494
	Posttest	11.75	28	3.193	.603

Based on the table 4.6 above, it is known the mean of pre-test is 7.79 and the mean of post-test is 11.75. Those numerals show that the mean of post-test is higher than the mean of pre-test. Meanwhile, the number of subject (N) for both pre-test and post-test is 28, standard deviation of pre-test and post-test are 2.616 and 3.193, and the standard error mean of pre-test and post-test are 0.494 and 0.603.

Table 4.7 Paired Samples Correlations

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	pretest & posttest	28	.978	.000

Rely on the table 4.3 above, it shows that the correlations between two scores of pre-test and post-test is 0.978 and the significance is 0.000. For the

interpretation of decision based on the result of probability achievement, it is as follows:

a) If the sig > 0.05, means H_0 is accepted

b) If the sig < 0.05, means H_0 is rejected

It shows that the significance numeral is 0.000 in which it is lower than 0.05. In short, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. Thus, it can be said that there is a significant correlation between pre-test and post-test scores.

Table 4.8 Paired Samples Test

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	pretest - posttest	-3.964	.838	.158	-4.289	-3.639	-25.030	27	.000

The output of paired samples test above (table 4.8) shows the result of T-test analysis by using SPSS 16.0 for windows. It shows mean of pre-test and post-test is 3.964, standard deviation is 0.838, mean of standard error is 0.158, the lower different is 4.289 and upper different is 3.639. While, the result of T-test is 25.03 with df = 27 and the significance (2-tailed) is 0.000.

B. Normality and Homogeneity Testing

In this section, the researcher elaborates the result of normality and homogeneity testing.

1. The Result of Normality Testing

Normality testing is conducted to determine whether the data gained is normal distribution or not. The researcher uses *One - Sample Kolmogorov-Smirnove test* in SPSS 16.0 for window by the value of significance (α) = 0.050. The result of normality testing can be seen on the table 4.9 below:

Table 4.9 The Result of Normality Testing

One-Sample Kolmogorov-Smirnov Test

		pretest	Posttest
N		28	28
Normal Parameters[a]	Mean	7.79	11.75
	Std. Deviation	2.616	3.193
Most Extreme Differences	Absolute	.253	.255
	Positive	.253	.255
	Negative	-.176	-.164
Kolmogorov-Smirnov Z		1.339	1.347
Asymp. Sig. (2-tailed)		.055	.053

a. Test distribution is Normal.

The output of normality testing on table 4.9 above shows that the significance value of pre-test is 0.055 and post-test is 0.053. Both values are higher than 0.05. Hence, it can be interpreted that both of data (pre-test and post-test score) are in the normal distribution.

2. The Result of Homogeneity Testing

Homogeneity testing is conducted to know whether the data gained has a homogeneous variance or not. The researcher uses *Test of Homogeneity of Variances* in SPSS 16.0 for window by the value of significance (α) = 0.050. The result of homogeneity testing can be seen in table 4.10 below:

Table 4.10 The Result of Homogeneity Testing

Test of Homogeneity of Variances

Pretest

Levene Statistic	df1	df2	Sig.
5.760	3	24	.004

Based on the table 4.10 above, it shows that the significance value is lower than 0.05 (0.004 < 0.050). Hence, it can be interpreted that the data is not homogeneous.

C. Hypothesis Testing

The hypothesis testing of this study can be identified as follows:

1. If the significant value is less than 0.05, the alternative hypothesis (H_a) is accepted and null hypothesis (H_0) is rejected. It means that there is significant difference between students' speaking achievement before and after being taught by using Inside Outside Circle (IOC) technique.

2. If the significant value is more than 0.05, the null hypothesis (H_0) is accepted and alternative hypothesis (H_a) is rejected. It means that there is

no significant difference between students' speaking achievement before and after being taught by using Inside Outside Circle (IOC) technique.

To know whether the alternative hypothesis (H_a) is accepted or not, the researcher takes a look at the significance (2-tailed) value in the result of *paired sample test* that calculated by using SPSS statistics 16.0 for windows. Based on the result of paired sample test, it can be seen that the significance (2-tailed) value is 0.000. It means that the significance level is less than 0.05 ($0.000 < 0.05$). Therefore, the alternative hypothesis (H_a) which states that there is significant difference between students' speaking achievement before and after being taught by using Inside Outside Circle (IOC) technique is accepted. Meanwhile, the null hypothesis (H_0) which states that there is no significant difference between students' speaking achievement before and after being taught by using Inside Outside Circle (IOC) technique is rejected.

D. Discussion

Based on the research finding, it shows that the mean scores between pre-test and post-test is different. The objectives of the study is to prove the effectiveness of using Inside Outside Circle (IOC) technique towards students' achievement in speaking and to know the significance different between students' speaking achievement before and after being taught by using Inside Outside Circle (IOC) technique of the eight grade students at MTs Sunan Kalijogo Rejosari.

According to the result of *paired samples statistics* which is presented in the research finding, it shows that the value of mean both pre-test and post-

test are 7.79 and 11.75. Those values show that the mean of post-test is higher than the mean of pre-test (11.75 > 7.79) and the improvement result of the IOC technique implementation is 3.96. Thus, it can be said that Inside Outside Circle (IOC) technique can give significant effect toward the students' achievement in speaking.

The next result of *paired samples statistics* is standard deviation. It is used to measure how much the variance of the samples. It shows that the standard deviation value of pre-test is 2.616 and the mean score of pre-test is 7.79. If both values are compared, the value of standard deviation of pre-test is lower than the mean score of pre-test (2.616 < 7.79). Meanwhile, the standard deviation value of post-test is 3.193 and the mean score of post-test is 11.75. It shows that the value of standard deviation of post-test is lower than the mean score of post-test (3.193 < 11.75). In this case, if the standard deviation is higher than the mean score, the sample is not homogeneous. Otherwise, if the standard deviation is lower than the mean score, the sample is homogeneous. From those results, it shows that the standard deviation of both pre-test and post-test score is lower than their mean score. Therefore, the sample of this study is homogeneous.

Besides, the samples of this study are also representative. It can be shown from the standard errors value of pre-test and post-test which are lower than the mean of pre-test and post-test. The standard error is measured to know the accuracy of the samples whether they represent the population or not. The standard error value of pre-test is 0.494 and it is lower than the mean

of pre-test (0.494 < 7.79). Then, the standard error value of post-test is also lower than the mean of post-test (0.603 < 11.75). Hence, the sample of this study can be said that they represent the population.

Furthermore, The result of *Paired Samples Test* shows that the significance value (2-tailed) is 0.000. It means that the significance level is less than 0.05 (0.000 < 0.05). Thus, the alternative hypothesis (Ha) is accepted and the null hypothesis (H$_0$) is rejected. Besides, the score of t$_{count}$ shows that it is higher than t$_{table}$ (25.030 > 1.703). Therefore, it can be strongly said that there is significant difference between students' speaking achievement before and after being taught by using Inside Outside Circle (IOC) technique. It is appropriate with the findings in both studies conducted by Rahmawati (2013) and Alfiana (2014) that Inside Outside Circle (IOC) technique can improve the students' speaking ability so that IOC technique is indicated able to give significant difference towards students' speaking achievement.

In addition, Inside Outside Circle (IOC) technique can give significant effect to the students' speaking ability. It can be shown prominently from their speaking development in both pre-test and post-test. In pre-test they still get difficulties in expressing their ideas when they are asked to tell their experience. In this case, the students only can make very short story which consist of three up to five utterances approximately that use limited vocabulary and less appropriate of grammar and pronunciation. However, it is different when they are in the post-test, most of students shows some

improvement. They can present more than five utterence with various vocabulary and appropriate grammar and pronunciation in telling their experiences.

Another effect to the students after being taugh by using Inside Outside Circle (IOC) technique can be seen on their attitudes when they engage in the speaking class. It is known from the implementation of Inside Outside Circle (IOC) technique to the students of the eight grade at Mts Sunan Kalijogo Rejosari in the class. The roles of teacher in implementing this technique are to monitor the students' activities and help them when they got difficulties in speaking such as pronouncing the words in the target language. Thus, the researcher knows that the students seem to be active and interested to participate in speaking activity. Since this technique is done rotating continually in pair to share personal experience so that it can encourages all of the students to engage in speaking activity and make them who are passive to be active in speaking out with their own partner.

This finding is strengthened with the statement from Bennett, B and C. Rolheiser (2001) that the activity of inside outside circle encourages community building among students while incorporating movement and interaction. It is also relevant to the finding in the study conducted by Rahmawati (2013) that Inside Outside Circle (IOC) technique can make the students who are passive to be active in speaking class so this technique can develop their speaking skill.

Further, the students looks so enthusiastic and enjoy the activity because the activity requires them to move and do conversation with different partner. This atmosphere make their motivation up in speaking since they get used to have conversation with different partner so through this activity they feel easy to start doing conversation with a new partner without being shy and afraid of making mistake. It is also stated by Bennett, B and C. Rolheiser (2001) that many students find it safer or easier to enter into a discussion with another classmate rather than with a large group. Further, Alfiana (2014) in her study also proves that Inside Outside Circle (IOC) technique is effective to improve the students' speaking skill, motivation and interest.

Based on the explanation above, Inside Outside Circle (IOC) technique shows that it can be an alternative strategy to improve the students' speaking ability. Since this technique provides for movement and interaction so it can make the students to be active in speaking class. They also feel so enthusiastic and look enjoy because they get different partner when they have speaking class through this technique. As a result, they can practice their speaking easily without any pressure feeling such as shy and afraid of making mistake so that there is improvement on their speaking ability and also their speaking achievement.

At last, Inside Outside Circle (IOC) surely shows the real effectiveness toward the students' speaking achievement of the eight grade at MTs Sunan Kalijogo Rejosari because it can help the students to improve

their speaking ability. Thus, it can be chosen as one of alternative strategy to enhance the students' achievement in speaking.