# CHAPTER IV FINDINGS AND DISCUSSION

This chapter presents the data that was collected during the experimental research. First analysis focuses on the homogeneity of the sample; the second analysis focuses on the validity, reliability, index difficulty, and discriminating power of instruments. And the third analysis represents the result of pre-test and post-test that was done both in experimental and control group.

#### A. First Analysis

The first analysis was homogeneity test of the sample. That was previous summative score of students of VIII A as experimental group and students of VIII B as control group. The analysis was meant to get the homogeneous class of VIII A and VIII B. In this study, the homogeneity of the test was measured by comparing the obtained score ( $F_{score}$ ) with  $F_{table}$ . Thus, if the obtained score ( $F_{score}$ ) was lower than the  $F_{table}$  or equal, it could be said that the Ho was accepted. It meant those the classes were homogeneous. The analysis of homogeneity test could be seen in table I.

| Variant Sources        | Experimental G | Control G |
|------------------------|----------------|-----------|
|                        |                |           |
| Sum                    | 2750,00        | 2810,00   |
| n                      | 40             | 40        |
| <br>X                  | 68,75          | 70,25     |
| Variants (s2)          | 77,88          | 66,60     |
| Standart deviation (s) | 8,83           | 8,16      |

Table. I. Test of Homogeneity

By knowing the mean and the variance, the researcher was able to test the similarity of the two variants with the homogeneity test from students' previous score between VIII A and VIII B. The computation of the test of homogeneity as follows:

$$F = \frac{Biggest Variance}{Smallest Variance}$$
$$= 77,88/66,60$$
$$= 1.17$$

On a 5% with df numerator (nb - 1) = 40 - 1 = 39 and df denominator (nk - 1) = 40 - 1 = 39, it was found  $F_{table} = 1.70$ . Because of  $F_{score} \leq F_{table}/1.17 \leq 1.70$ , so it could be concluded that both VIII A and VIII B had no differences. The result showed both groups had similar variants (homogenous).

#### **B. Second Analysis**

The second analysis was meant to get a valid and reliable instrument for investigation. Try out tests were conducted for VIII D of MTs Negeri Kendal. Class VIII D consisted of 40 respondents. They were given a try out using the instrument that will be used in control and experiment class.. The following is the interpretation of the try out test to find out the validity and reliability of the instrument.

#### **1.Validity of Try Out Test**

The speaking items consist of five items. They are pronunciation, vocabulary, grammar, fluency, and comprehension. From the try out test that was conducted, it was obtained that all speaking items were valid. For example, the item analysis of relevance was obtained ( $r_{xy}$ ) 0.259 for  $\alpha = 5$  % with N = 40. It would be obtained 0.113. Since the result of the instruments validity was higher than the critical score, it was considered that the instruments were valid. The complete computation and the sample of computation are as below.

( )

The Computation of Item Validity Using Role Play

Formula:

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X^2)\}}\{N \sum Y^2 - (\sum Y^2)\}}$$

#### Criteria:

The item is valid if  $r_{xy} > r_{table}$ 

Calculation:

Below is the example of the item validity of number 3.

| NO | CODE   | X | Y  | <b>X</b> <sup>2</sup> | <b>Y</b> <sup>2</sup> | XY  |
|----|--------|---|----|-----------------------|-----------------------|-----|
| 1  | T - 12 | 4 | 16 | 16                    | 256                   | 64  |
| 2  | T – 21 | 5 | 18 | 25                    | 324                   | 90  |
| 3  | T – 36 | 5 | 16 | 25                    | 256                   | 80  |
| 4  | T - 9  | 4 | 17 | 16                    | 289                   | 68  |
| 5  | T- 16  | 4 | 19 | 16                    | 361                   | 76  |
| 6  | T- 27  | 4 | 15 | 16                    | 225                   | 60  |
| 7  | T - 34 | 4 | 16 | 16                    | 256                   | 64  |
| 8  | T - 5  | 4 | 16 | 16                    | 256                   | 64  |
| 9  | T- 23  | 4 | 19 | 16                    | 361                   | 76  |
| 10 | T- 25  | 5 | 15 | 25                    | 225                   | 75  |
| 11 | T – 31 | 4 | 17 | 16                    | 289                   | 68  |
| 12 | T - 33 | 5 | 23 | 25                    | 529                   | 115 |
| 13 | T - 2  | 4 | 17 | 16                    | 289                   | 68  |
| 14 | T - 4  | 4 | 16 | 16                    | 256                   | 64  |
| 15 | T- 13  | 4 | 17 | 16                    | 289                   | 68  |
| 16 | T- 15  | 5 | 20 | 25                    | 400                   | 100 |
| 17 | T- 17  | 4 | 18 | 16                    | 324                   | 72  |
| 18 | T-24   | 5 | 15 | 25                    | 225                   | 75  |
| 19 | T-35   | 4 | 16 | 16                    | 256                   | 64  |
| 20 | T-37   | 4 | 17 | 16                    | 289                   | 68  |
| 21 | T-1    | 4 | 20 | 16                    | 400                   | 80  |
| 22 | T-8    | 3 | 16 | 9                     | 256                   | 48  |
| 23 | T-11   | 4 | 18 | 16                    | 324                   | 72  |
| 24 | T-14   | 3 | 16 | 9                     | 256                   | 48  |
| 25 | T-20   | 4 | 18 | 16                    | 324                   | 72  |
| 26 | T-22   | 4 | 16 | 16                    | 256                   | 64  |
| 27 | T-26   | 3 | 19 | 9                     | 361                   | 57  |
| 28 | T-28   | 3 | 16 | 9                     | 256                   | 48  |
| 29 | T-30   | 3 | 14 | 9                     | 196                   | 42  |
| 30 | T-32   | 3 | 16 | 9                     | 256                   | 48  |
| 31 | T-39   | 4 | 18 | 16                    | 324                   | 72  |
| 32 | T-40   | 4 | 16 | 16                    | 256                   | 64  |
| 33 | T-7    | 4 | 18 | 16                    | 324                   | 72  |
| 34 | T-19   | 3 | 19 | 9                     | 361                   | 57  |
| 35 | T-38   | 3 | 17 | 9                     | 289                   | 51  |
| 36 | T-3    | 4 | 20 | 16                    | 400                   | 80  |
| 37 | T-6    | 4 | 17 | 16                    | 289                   | 68  |
| 38 | T-10   | 3 | 15 | 9                     | 225                   | 45  |

|                           | 39       | , r | Т-29       | 4        | 16          | 16     | 256              | 64        |
|---------------------------|----------|-----|------------|----------|-------------|--------|------------------|-----------|
|                           | 40       | r   | Т-18       | 3        | 16          | 9      | 256              | 48        |
|                           | Sum      |     |            | 156      | 684         | 624    | 11820            | 2679      |
| V                         | Where: N | =40 | $X^2 = 62$ | 4 X = 15 | 6 $Y^2 = 1$ | 1820 Y | $X = 684 \Sigma$ | XY = 2679 |
| (40, 20, 70) $(150)(004)$ |          |     |            |          |             |        |                  |           |

$$r_{xy} = \frac{(40 \times 2679) - (156)(684)}{\sqrt{\{(40 \times 624) - (156)^2\}\{(40 \times 11820) - (684)^2\}}} = 0.259$$

Because of  $r_{xy} > r_{table}$ , so item number 3 is valid.

#### 2. Reliability of Try Out Test

After validity items had been done, the next analysis was to test the reliability of instrument. It was done to find out whether a test had higher critical score and gave the stability or consistency of the test scores or not. From the computation of reliability of the try out instruments using role play, it was obtained 0.531, for  $\alpha$  5 % with N = 40. It was obtained 0.113. It could be concluded that the instruments that were used in this research was reliable. The complete analysis and the computation as follow:

## The Computation of Reliability Using Role Play

Formula:

$$\mathbf{r}_{11} = \left(\frac{k}{k-1}\right) \left(1 - \frac{\sum \boldsymbol{\sigma}_{b^2}}{\boldsymbol{\sigma}_{t^2}}\right)$$

Criteria: The try out is reliable if  $r_{11} > r_{table}$ 

Calculation:

$$\sigma_t^2 = \frac{\sum Y^2 - \frac{(Y)^2}{N}}{N}$$
$$\sigma_t^2 = \frac{11820 - \frac{(684)^2}{40}}{40}$$
$$= 3.09$$

Variance

$$\sigma_b^2 = \frac{\sum X^2 - \frac{(\Sigma X)^2}{N}}{N}$$
$$\sigma_{b1}^2 = \frac{\frac{489 - \frac{(137)^2}{40}}{40}}{40} = 0,494$$

$$\sigma_{b2}^{2} = \frac{472 - \frac{(136)^{2}}{40}}{40} = 0,24$$
$$\sigma_{b3}^{2} = \frac{624 - \frac{(156)^{2}}{40}}{40} = 0,39$$
$$\Sigma b_{b}^{2} = 1,776$$

Index Reliability

$$\mathbf{r}_{11} \qquad = \left(\frac{5}{5-1}\right) \left(1 - \frac{1.776}{3.09}\right)$$

= 0.531

The result shows that 0.531 is more than 1.113, it meant that the items of instrument were valid.

# **3.Discriminating Power of Try Out Test**

The discriminating power of the five items analysis of speaking was satisfied. It showed that all speaking items had strong discrimination. The complete analysis and the sample of computation as follow.

# The Computation of Discriminating Power

Formula:

$$D = \frac{B_A}{J_A} - \frac{B_B}{J_B} = P_A - P_B$$

| Criteria:       |                |
|-----------------|----------------|
| D = 0.00 - 0.20 | : Poor         |
| D = 0.21 - 0.40 | : Satisfactory |
| D = 0.41 - 0.70 | : Good         |
| D = 0.71 - 1.00 | : Excellent    |

Calculation:

Below is the example of the computation of discriminating power on item number 3.

$$D = \frac{15}{15} - \frac{10}{15} = 1 - 0.66 = 0.33$$

The result obtained D = 0,333

Because of the result is between 0.21 - 0,40. So the item number 3 is satisfactory.

## 4.Difficulty Level of Try Out Test

From the computation of difficulty level of the five items analysis of speaking, it was found that the difficulty level is easy. So, it could be concluded that the final total items analysis for the instruments were categorized satisfactory. The sample of computation is as follow.

#### The Computation of Difficulty Index

Formula:  
$$P = \frac{B}{JS}$$

Criteria:  $0.00 \le P < 0.30$  is difficult

 $0.30 \le P < 0.70$  is medium

 $0.70 \le P < 1.00$  is easy

Calculation:

Below is the example of the computation of difficulty level on item number 3.

B = 30  
JS = 40  
So:  
$$P = \frac{30}{40} = 0.75$$

The result obtained P = 0.75Because of the result is between 0.70 - 100, so the item number 3 is easy.

#### C. Third Analysis

The second analysis represents the result of pre-test and post-test that was done both in experimental and control group. This analysis will answer the research question "Is role play effective to improve students' speaking skill in transactional and interpersonal text?". We can conclude role play is effective when the result of post test of the experimental class (using role play technique) and control class (using conventional technique) has significant differences or the assumption that those classes is equal is not fulfilled.

Before the researcher tested the hypothesis that had been mentioned in the chapter two, the researcher analyzed and tested hypothesis prerequisites which contained of normality test and homogeneity test. Second analysis dealt with normality test, homogeneity test, and t-test (test of difference two variants) in pre-test and post-test.

#### 1. Analysis of Pre-test

The experimental group (VIII A) was given a pre-test on April 8, 2010 and control group (class VIII B) was given a pre-test on April 5, 2010. They were asked to make a conversation based on situations that were given to them.

#### a. Test of Normality

Test of normality was used to find out whether data of control and experimental group which had been collected from the research come from normal distribution normal or not. The result computation of Chi-quadrate  $(X_{score}^2)$  then was compared with table of Chi-quadrate  $(X_{table}^2)$  by using 5% alpha of significance. If  $X_{score}^2 < X_{table}^2$  meant that the data spread of research result distributed normally.

Based on the research result of VIII B students in the control group before they were taught speaking transactional and interpersonal text without role play, they reached the maximum score 76 and minimum score 52. The stretches of score were 24. So, there were 7 classes with length of classes 6. From the computation of frequency distribution, it was found  $(\Sigma f_{i.}x_{i}) =$ 3038.5, and  $(\Sigma f_{i.}x_{i}^{2}) = 229432$ . So, the average score  $(\overline{X})$  was 74.11 and the standard deviation (S) was 10.307. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-quadrate  $(X_{score}^{2})$ .

Table IV. 1 Table of the Observation Frequency ofControl Group

| Class   | Class<br>Limit | Zi    | P(Z <sub>i</sub> ) | Ld     | Ei  | Oi | $\frac{\left(O_{i} - E_{i}\right)^{2}}{E_{i}}$ |
|---------|----------------|-------|--------------------|--------|-----|----|--|
|         | 51,5           | -2,19 | -0,4859            |        |     |    |  |
| 52 _ 57 |                |       |                    | 0,0394 | 1,6 | 3  | 1,1859   |
|         | 57,5           | -1,61 | -0,4465            |        |     |    |  |
| 58 _ 63 |                |       |                    | 0,0981 | 4,0 | 3  | 0,2601   |
|         | 63,5           | -1,03 | -0,3483            |        |     |    |  |
| 64 _ 69 |                |       |                    | 0,1757 | 7,2 | 8  | 0,0881   |
|         | 69,5           | -0,45 | -0,1726            |        |     |    |  |
| 70 _ 75 |                |       |                    | 0,2263 | 9,3 | 8  | 0,1760   |
|         | 75,5           | 0,13  | 0,0536             |        |     |    |  |
| 76 _ 81 |                |       |                    | 0,2097 | 8,6 | 8  | 0,0190   |
|         | 81,5           | 0,72  | 0,2633             |        |     |    |  |
| 82 _ 87 |                |       |                    | 0,1397 | 5,7 | 5  | 0,0928   |
|         | 87,5           | 1,30  | 0,4030             |        |     |    |  |
| 88 _ 93 |                |       |                    | 0,0670 | 2,7 | 5  | 1,8493   |
|         | 93,5           | 1,88  | 0,4700             |        |     |    |  |
|         |                |       |                    |        | X²  | =  | 3,6712   |

Based on the Chi-quadrate table  $(X_{table}^2)$  for 5% alpha of

significance with df 7 – 3 = 4, it was found  $X_{table}^2$  = 9.49. Because

of  $X_{score}^2 < X_{table}^2$ , so the initial data of control group distributed normally.

While from the result of VIII A students in experimental group, before they were taught speaking transactional and interpersonal text by using role play, was found that the maximum score was 76 and minimal score was 52. The stretches of score were 24. So, there were 7 classes with length of classes 6. From the computation of frequency distribution, it was found  $(\Sigma f_{i.}x_{i}) = 3026.5$ , and  $(\Sigma f_{i.}x_{i}^{2}) = 227188$ . So, the average score  $(\overline{X})$  was 73.817 and the standard deviation (S) was 9.7222. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-quadrate  $(X_{score}^{2})$ .

Table IV. 2 Table of the Observation Frequency ofExperimental Group

| Class                | Class<br>Limit | $Z_i$ | P(Z <sub>i</sub> ) | Ld         | Ei         | Oi | $\frac{(O_i - E_i)^2}{E_i}$ |
|----------------------|----------------|-------|--------------------|------------|------------|----|-----------------------------|
|                      | 39,5           | -2,30 | -0,4891            |            |            |    |                             |
| 40 - 45              |                |       |                    | 0,035<br>8 | 1,5        | 3  | 1,6009                      |
|                      | 45,5           | -1,68 | -0,4534            |            |            |    |                             |
| 46 - 51              |                |       |                    | 0,097<br>7 | 4,0        | 2  | 1,0031                      |
|                      | 51,5           | -1,06 | -0,3557            |            |            |    |                             |
| 52 - 57              |                |       |                    | 0,184<br>2 | 7,6        | 10 | 0,7933                      |
|                      | 57,5           | -0,44 | -0,1715            |            |            |    |                             |
| 58 - 63              |                |       |                    | 0,240<br>2 | 9,8        | 6  | 1,5039                      |
|                      | 63,5           | 0,17  | 0,0687             |            |            |    |                             |
| 64 - 69              |                |       |                    | 0,216<br>6 | 8,9        | 10 | 0,5060                      |
|                      | 69,5           | 0,79  | 0,2853             |            |            |    |                             |
| 70 – 75              |                |       |                    | 0,135<br>0 | 5,5        | 6  | 0,0388                      |
|                      | 75,5           | 1,41  | 0,4203             |            |            |    |                             |
| $7\overline{6} - 81$ |                |       |                    | 0,058<br>2 | 2,386<br>1 | 3  | 0,1579                      |
|                      | 81,5           | 2,02  | 0,4785             |            |            |    |                             |
|                      |                |       |                    |            |            | =  | 5,4459                      |
|                      |                |       |                    |            | X2         |    |                             |

Based on the Chi-quadrate table  $(X_{table}^2)$  for 5% alpha of significance with df 7 – 3 = 4, it was found  $X_{table}^2$  = 9.49. Because of  $X_{score}^2 < X_{table}^2$ , so the initial data of experimental group distributed normally.

#### b. Test of Homogeneity

Test of homogeneity was done to know whether sample in the research come from population that had same variance or not. In this study, the homogeneity of the test was measured by comparing the obtained score ( $F_{score}$ ) with  $F_{table}$ . Thus, if the obtained score ( $F_{score}$ ) was lower than the  $F_{table}$  or equal, it could be said that the Ho was accepted. It meant that the variance was homogeneous. The analysis of homogeneity test could be seen in table IV. 3.

Table. IV. 3 Test of Homogeneity (Pre-test)

| Variant Sources        | Experimental G | Control G |
|------------------------|----------------|-----------|
|                        |                |           |
| Sum                    | 2548,00        | 2492,00   |
| n                      | 40             | 40        |
| x                      | 63,70          | 62,30     |
| Variants (s2)          | 53,6513        | 68,8308   |
| Standart deviation (s) | 7,32           | 8,30      |

By knowing the mean and the variance, the writer was able to test the similarity of the two variants in the pre-test between experimental and control group. The computation of the test of homogeneity as follows:

$$F = \frac{Biggest Variance}{Smallest Variance}$$
$$= 68,8308/53,6513$$
$$= 1.283$$

On a 5% with df numerator (nb - 1) = 40 - 1 = 39 and df denominator (nk - 1) = 40 - 1 = 39, it was found  $F_{table} = 1.70$ .

Because of  $F_{score} \leq F_{table}$ , so it could be concluded that both experimental and control group had no differences. The result showed both groups had similar variants (homogenous).

# c.Test of difference two variants in pre-test between experiment and control group

After counting standard deviation and variance, it could be concluded that both group have no differences in the test of similarity between two variances in pre-test score. So, to differentiate whether the students' results of speaking transactional and interpersonal text in experimental and control group were significant or not, the writer used t-test to test the hypothesis that had been mentioned in the chapter two. The writer used formula:

$$t = \frac{\overline{x}_{1} - \overline{x}_{2}}{s\sqrt{\frac{1}{n_{1}} + \frac{1}{n_{2}}}}$$

Where:

$$S = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

Based on table IV. 3, first the writer had to find out S by using the formula above:

S = 
$$\sqrt{\frac{(40-1)53.6513+(40-1)68.8308}{40+40-2}}$$
  
= 7.82566

After S was found, the next step was to measure t-test:

t = 
$$\frac{63.70 - 62.30}{7.82566\sqrt{\frac{1}{40} + \frac{1}{40}}}$$
  
= 0.800

After getting t-test result, then it would be consulted to the critical score of  $t_{table}$  to check whether the difference is significant or not. For a = 5% with df 40 + 40 - 2 = 78, it was found  $t_{table(0.975)(80)} = 1.99$ . Because of  $t_{score} < t_{table}$ , so it could be concluded that there was no significance of difference between the experimental and control group. It meant that both experimental and control group had same condition before getting treatments.

#### 2. Analysis of Post-test

The experimental group was given post test on April 29, 2009 and control group was given a post test on April 30, 2009. Post-test was conducted after all treatments were done. Role play was used as technique in the teaching of speaking transactional and interpersonal text to students in experimental group. While for students in control group, they were given treatments without role play. Post-test was aimed to measure students' ability after they got treatments. They were asked to have a conversation after they get the situations.

#### a. Test of Normality

Test of normality was used to find out whether data of control and experimental group, which had been collected after they got treatments, come from normal distribution normal or not. The formula, that was used, was Chi-quadrate. The result computation of Chi-quadrate  $(X_{score}^2)$  then was compared with table of Chi-quadrate  $(X_{table}^2)$  by using 5% alpha of significance. If  $X_{score}^2 < X_{table}^2$  meant that the data spread of research result distributed normally.

Based on the research result of VIII B students in the control group after they got usual treatments in the teaching of speaking transactional and interpersonal text, they reached the maximum score 84 and minimum score 56. The stretches of score were 28. So, there were 7 classes with length of classes 5. From the computation of frequency distribution, it was found  $(\Sigma f_{i.} x_{i}) = 2815$ , and  $(\Sigma f_{i.} x_{i}^{2}) = 199905$ . So, the average score  $(\overline{X})$  was 70.375 and the standard deviation (S) was 6.79. It meant that there was an improvement of students' score after they got treatments. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-quadrate  $(X_{score}^{2})$ .

Table IV. 4 Table of the Observation Frequency ofControl Group

| Class   | Class<br>Limit | Zi    | P(Z <sub>i</sub> ) | Ld     | Ei     | Oi | $\frac{(O_i - E_i)^2}{E_i}$ |
|---------|----------------|-------|--------------------|--------|--------|----|-----------------------------|
|         | 55,5           | -2,19 | -0,4857            |        |        |    |                             |
| 56 – 60 |                |       |                    | 0,0587 | 2,4    | 3  | 0,1455                      |
|         | 60,5           | -1,45 | -0,4270            |        |        |    |                             |
| 61 - 65 |                |       |                    | 0,1635 | 6,7    | 8  | 0,2513                      |
|         | 65,5           | -0,72 | -0,2635            |        |        |    |                             |
| 66 - 70 |                |       |                    | 0,2709 | 11,1   | 9  | 0,3993                      |
|         | 70,5           | 0,02  | 0,0073             |        |        |    |                             |
| 71 - 75 |                |       |                    | 0,2674 | 11,0   | 8  | 0,8008                      |
|         | 75,5           | 0,75  | 0,2747             |        |        |    |                             |
| 76 - 80 |                |       |                    | 0,1572 | 6,4    | 11 | 3,2157                      |
|         | 80,5           | 1,49  | 0,4320             |        |        |    |                             |
| 81 - 85 |                |       |                    | 0,0550 | 2,3    | 1  | 0,7000                      |
|         | 85,5           | 2,23  | 0,4870             |        |        |    |                             |
| 86 - 90 |                |       |                    | 0,0115 | 0,4698 | 0  | 0,4698                      |
|         | 90,5           | 2,96  | 0,4985             |        |        |    |                             |
|         |                |       |                    |        | X²     | =  | 5,5125                      |

Based on the Chi-quadrate table  $(X_{table}^2)$  for 5% alpha of significance with dk 7 – 3 = 4, it was found  $X_{table}^2$  = 9.49. Because of  $X_{score}^2 < X_{table}^2$ , so the data of control group after getting treatments distributed normally.

While from the result of VIII A students in experimental group, after they were taught by using role play, was found that the maximum score was 92 and minimal score was 64. The

stretches of score were 28. So, there were 7 classes with length of classes 5. From the computation of frequency distribution, it was found  $(\Sigma f_{i.}x_{i}) = 3125$ , and  $(\Sigma f_{i.}x_{i}^{2}) = 247085$ . So, the average score  $(\overline{X})$  was 78.125 and the standard deviation (S) was 8.68889. By seeing the average score of students in experimental group, it could be concluded that there was an improvement of students' score after they got treatments by using role play. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-quadrate  $(X_{score}^{2})$ .

Table IV. 5 Table of the Observation Frequency ofExperimental Group

|    | Class | Class<br>Limit | $Z_i$ | P(Z <sub>i</sub> ) | Ld     | Ei     | Oi | $\frac{(O_i - E_i)^2}{E_i}$ |
|----|-------|----------------|-------|--------------------|--------|--------|----|-----------------------------|
|    |       | 63,5           | -1,68 | -0,4538            |        |        |    |                             |
| 64 | _ 68  |                |       |                    | 0,0878 | 3,6    | 6  | 1,5990                      |
|    |       | 68,5           | -1,11 | -0,3660            |        |        |    |                             |
| 69 | _ 73  |                |       |                    | 0,1633 | 6,7    | 9  | 0,7942                      |
|    |       | 73,5           | -0,53 | -0,2027            |        |        |    |                             |
| 74 | _ 78  |                |       |                    | 0,2199 | 9,0    | 6  | 1,0100                      |
|    |       | 78,5           | 0,04  | 0,0172             |        |        |    |                             |
| 79 | _ 83  |                |       |                    | 0,2147 | 8,8    | 7  | 0,3692                      |
|    |       | 83,5           | 0,62  | 0,2319             |        |        |    |                             |
| 84 | _ 88  |                |       |                    | 0,1519 | 6,2    | 6  | 0,0082                      |
|    |       | 88,5           | 1,19  | 0,3838             |        |        |    |                             |
| 89 | _ 93  |                |       |                    | 0,0778 | 3,2    | 5  | 1,0259                      |
|    |       | 93,5           | 1,77  | 0,4616             |        |        |    |                             |
| 94 | _ 98  |                |       |                    | 0,0289 | 1,1845 | 1  | 0,0287                      |
|    |       | 98,5           | 2,34  | 0,4905             |        |        |    |                             |
|    |       |                |       |                    |        | X2     | =  | 4,8065                      |

Based on the Chi-quadrate table  $(X_{table}^2)$  for 5% alpha of significance with df 7 – 3 = 4, it was found  $X_{table}^2$  = 9.49. Because of  $X_{score}^2 < X_{table}^2$ , so the data of experimental group after getting treatments distributed normally.

#### b. Test of Homogeneity

The writer determined the mean and variance of the students' score either in experimental or control group. By knowing the mean and variance, the writer was able to test the similarity of the two variance in the post-test between experimental and control group.

 Table. IV. 6 Test of Homogeneity (Post-test)

| Varians Sources            | Experimental G | Control G |
|----------------------------|----------------|-----------|
| Sum                        | 3140,0         | 2800,0    |
| n                          | 40             | 40        |
| —                          |                |           |
| x                          | 78,50          | 70,00     |
| Variants (S <sup>2</sup> ) | 71,1282        | 36,1026   |
| Standart deviation (S)     | 8,43           | 6,01      |

The computation of the test of homogeneity as follows:

$$F = \frac{Biggest \ Variance}{Smallest \ Variance}$$

= 71.1282/36.1026

On a 5% with df numerator (nb - 1) = 40 - 1 = 39 and df denominator (nk - 1) = 40 - 1 = 39, it was found Ftable (0.025)(40:40) = 1.66. Because of  $F_{score} \leq F_{table}$ , so it could be concluded that both experimental and control group had no differences. The result showed both groups had similar variance (homogenous).

# c. Test of difference two variants in post-test between experiment and control group

After counting standard deviation and variance, it could be concluded that both group have no differences in the test of similarity between two variances in post-test score. So, to differentiate if the students' results of speaking transactional and interpersonal text in experimental and control group after getting treatments were significant or not, the writer used t-test to test the hypothesis that had been mentioned in the chapter two. To see the difference between the experimental and control group, the writer used formula:

$$t = \frac{\overline{x}_{1} - \overline{x}_{2}}{s\sqrt{\frac{1}{n_{1}} + \frac{1}{n_{2}}}}$$

Where:

$$S = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

Based on table IV. 6, first the writer had to find out S by using the formula above:

S = 
$$\sqrt{\frac{(40-1)71.1282 + (40-1)36.1026}{40+40-2}}$$
  
= 7.32225

After S was found, the next step was to measure t-test:

t = 
$$\frac{78.50 - 70.00}{7.32225\sqrt{\frac{1}{40} + \frac{1}{40}}}$$
  
= 5.191

After getting t-test result, then it would be consulted to the critical score of  $t_{table}$  to check whether the difference is significant or not. For a = 5% with df 40 + 40 - 2 = 78, it was found  $t_{table(0.95)(80)} = 1.66$ . Because of  $t_{score} > t_{table}$ , so it could be concluded that there was significance of difference between the experimental and control group. It meant that experimental group was better that control group after getting treatments.

Since the obtained t-score was higher than the critical score on the table, the difference was statistically significance. Therefore, based on the computation there was a significance difference between the teaching of speaking transactional and interpersonal text using role play and the teaching of speaking transactional and interpersonal text without role play for the eighth grade students of MTs Negeri Kendal. Teaching speaking in transactional and interpersonal text using role play technique seemed to be more effective than teaching speaking in transactional and interpersonal text without using role play. It can be seen from the result of the test where the students taught speaking in transactional and interpersonal text without speaking in transactional and interpersonal text without speaking in transactional and interpersonal text without using role play. It can be seen from the result of the test where the students taught speaking in transactional and interpersonal text without role play.

#### **D.** Discussions

The data were obtained from the students' achievement scores of the test of speaking transactional and interpersonal text. They were pre-test and post-test scores from the experimental and control group. The average score for experimental group was 63.7 (pre-test) and 78.5 (post-test). The average score for control group was 62.4 (pre-test) and 70 (post-test). The following was the simple tables of pre and post-test students' average score and students' average score of each speaking components.

| No | Group        | The Average            | The Average             |
|----|--------------|------------------------|-------------------------|
|    |              | Percentage of Pre-test | Percentage of Post-test |
| 1  | Experimental | 63.7                   | 78.5                    |
| 2  | Control      | 62.4                   | 70                      |

Table IV. 7 The Pre-test and Post-test Students' Average Scores of theExperimental and Control Group

| Table IV. 8 The Pre-test and Post-test Students' Average Scores of the | e |
|--|---|
| <b>Experimental and Control Group</b>                                  |   |

| No | Component of  | Group        | The Average   | The       |
|----|---------------|--------------|---------------|-----------|
|    | Speaking      |              | Score of Pre- | Average   |
|    |               |              | test          | Score of  |
|    |               |              |               | Post-test |
| 1  | Pronunciation | Experimental | 3,3           | 3,8       |
|    |               | Control      | 3,1           | 3,2       |
| 2  | Grammar       | Experimental | 3,1           | 3,7       |
|    |               | Control      | 2,9           | 3,6       |
| 3  | Vocabulary    | Experimental | 3,2           | 3,9       |
|    |               | Control      | 2,8           | 3,8       |
| 4  | Fluency       | Experimental | 3,2           | 4,1       |
|    |               | Control      | 3,2           | 3,3       |
| 5  | Comprehension | Experimental | 3,1           | 4,0       |
|    |               | Control      | 3,4           | 3,3       |

# a. Students' Condition in Control Group

In this study, source of data that become as control group was class VIII B. In the control group, there was not a new treatment in a teaching learning process. They were given a usual treatment. They were taught speaking transactional and interpersonal text using conventional method. By making and memorizing the expressions of daily life in the teaching learning process, teacher had used a grammar translation method that could not increase students' speaking skill in transactional and interpersonal text. Students could not enjoy in practicing their skill in speaking because they only make and memorize those expression that usually used in daily life without practice to use it as its function. It was proven with the control group's average in the post-test (70) which was lower than the experimental group (78.5).

#### b. Students' Condition in Experimental Group

#### 1) Analysis Students' Speaking Before Treatment (Pre-test)

In the pre-test, students' ability in speaking transactional and interpersonal text was low. Pre-test was conducted before the treatment. From the result of pre-test, it was known that students faced many difficulties in speaking transactional and interpersonal text. Sentences, which were used by students to convey the idea, were influenced by Indonesian language. Moreover they don't know what should they say when they want to convey their meaning. Students' ability was in low level when they had to arrange words to be a good sentence that comprehensible by considering main function. It meant that the idea was not clearly stated and the sentences were not wellorganized to support the transformation of meaning. Students' word voice (Pronunciation and fluency) was also far from being perfect. Not only the way they convey their idea was not clear but also there were many difficulties in grammar and vocabulary; therefore, students' ability of speaking transactional and interpersonal text was hard to be understood. To minimize the number of students' mistakes in their speaking, the researcher collected students' speaking in writing form after they do their conversation, gave correction, and returned the paper to them in the next day. From the correction of their mistakes, students'

were supposed to learn more and improve their ability in speaking transactional and interpersonal text.

#### 2) Analysis Students' Speaking After Treatment (Post-test)

Based on the analysis of students' ability, it was found that students' ability after getting treatment was improved. In the treatment, students were doing transactional and interpersonal role play that was in line with the function of some expressions they learn. The vocabulary choice, sentences' arrangement, and the way they produce the word were good and relevance to the topic or (their meaning) so the meaning were easy to be understood. Their speaking was still comprehensible however; there were some mistakes in grammar and pronunciation.

The finding that shows students' ability is namely the increasing of students' average score. There were still some mistakes that students had made like grammar and pronunciation. But it was very human. So, it could be concluded that the implementation of using role play as method in the teaching of speaking transactional and interpersonal text was effective. It was proven with students' average score in experimental group was higher than control group. By considering the students' final score after getting treatment, the teaching of speaking transactional and interpersonal text using role play as method was better than without role play.

Based on t-test analysis that was done, it was found that the t-score (5.191) was higher than t-table by using 5% alpha of significance (1.66). Since  $t_{score} > t_{table}$ , it proved that there was a significant difference between the improvement of students achievement that was given a new treatment (using role play) and the improvement of students achievement that was given a usual treatment.

- c. The Advantages and Disadvantages of Using Role Play in the Teaching of Speaking Transactional and Interpersonal Text
  - The Advantages of Using Role Play in the Teaching of Speaking Transactional and Interpersonal Text

After conducting the research, there were some advantages of using role play technique in the teaching of speaking transactional and interpersonal text:

- a. Role play gave students the real situations of a chronological action. It helped students to express their ideas based on their imagination to be transferred to the reality. The use of role play was actually meant to help them in imagining and expressing their ideas easily.
- b. Students' boredom in learning speaking could be avoided. The treatment gave students different nuances of teaching and learning process so they were interested in following the lesson. Role play that gives students chance to show up their speaking in group or pair could build their confidence to try to speak, so that they will know how far their speaking skill is.
- c. According to a wise word "practice makes perfect", role play also gives many chance to practice speaking. Because language is skill, so it must be used as often as possible. It will be very wasting time when the students only learn lots of expression or learn how to make expression without using it. Because the objective of learning a certain language is not only to know how we say "*bisakah kamu membantuku*?" in English? Or how to arrange sentence that has the meaning "*Kamu sunnguh baik hati*". But we also have to know how to say it and when should we say it.

- The Disadvantages of Using Role Play in the Teaching of Speaking Transactional and Interpersonal Text The disadvantages were described below:
  - a. It spent a lot of time, because the students' skill was too low, they can't directly make a conversation after getting the situations that distributed by the teacher. They need time to prepare their conversation.
  - b. It was not easy enough to manage the class, because sometime the students will be very hysteric when they see their friends practicing in front of them. Their voice can disturb another class.

# E. Limitation of Research

The writer realized that there were some hindrances and barriers in doing this research. The hindrances and barriers occurred was not caused by inability of the researcher but caused by the limitation of the research like time, fund, and equipment of research.