

## CHAPTER IV

### FINDINGS AND DISCUSSION

#### I. First Analysis

Before doing second analysis, the researcher analyzed and tested hypothesis pre-requisite test as the first analysis which contained of normality test and homogeneity test to make sure that class VIII A and class VIII B were homogeneous.

##### A. Test of Normality

Test of normality in pre-requisite test was used to find out whether data of class VIII A and class VIII B which had been collected from the previous examination score from the teacher came from normal distribution or not. The result computation of Chi-Square ( $X^2_{score}$ ) then was compared with table of Chi-Square ( $X^2_{table}$ ) by using 5% alpha of significance. If  $X^2_{score} < X^2_{table}$  meant that the data spread of previous examination result normally.

Based on the previous examination result of class VIII A, before they were chosen as the control class, was found that the maximum score was 80 and minimal score was 45. The stretches of score were 35. So, there were 6 classes with length of classes 6. From the computation of frequency distribution, it was found ( $\sum f_i x_i$ ) = 1393, and ( $\sum f_i x_i^2$ ) = 89970. So, the average score ( $\bar{X}$ ) was 63.318 and the standard deviation (S) was 9.1736. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-Square ( $X^2_{score}$ ).

Table 1. Table of the Observation Frequency of Class VIII A

Class	Bk	$Z_i$	$P(Z_i)$	Ld	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	44.5	-2.05	-0.4799				
45 – 50				0.0610	1.3	3	2.0443
	50.5	-1.40	-0.4188				

51 – 56				0.1475	3.2	1	1.5533
	56.5	-0.74	-0.2713				
57 – 62				0.2358	5.2	7	0.6333
	62.5	-0.09	-0.0355				
63 – 68				0.2494	5.5	3	1.1279
	68.5	0.56	0.2139				
69– 74				0.1746	4.4	6	0.6114
	74.5	1.22	0.3886				
75 – 80				0.0809	1.8	2	0.0272
	80.5	1.87	0.4695				
					X <sup>2</sup>	=	5.9973

Based on the Chi-Square table ( $X_{table}^2$ ) for 5% alpha of significance with  $df\ 6 - 3 = 3$ , it was found  $X_{table}^2 = 7.81$ . Because of  $X_{score}^2 < X_{table}^2$ , so the distribution list is normal.

While from the previous examination result of class VIII B before they were chosen as the experimental class, was found that the maximum score was 80 and minimal score was 45. The stretches of score were 35. So, there were 6 classes with length of classes 6. From the computation of frequency distribution, it was found  $(\sum f_i x_i) = 1363$ , and  $(\sum f_i x_i^2) = 86652$ . So, the average score ( $\bar{X}$ ) was 61.955 and the standard deviation (S) was 10.253. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-Square ( $X_{score}^2$ ).

Table 2. Table of the Observation Frequency of Class VIII B

Class	Bk	Z <sub>i</sub>	P(Z <sub>i</sub> )	Ld	E <sub>i</sub>	O <sub>i</sub>	$\frac{(O_i - E_i)^2}{E_i}$
	44.5	-1.70	-0.4557				
45 – 50				0.0876	1.9	4	2.2285
	50.5	-1.12	-0.3681				
51 – 56				0.1654	3.6	5	0.5090
	56.5	-0.53	-0.2026				
57 – 62				0.2239	4.9	5	0.0011
	62.5	0.05	0.0212				
63 – 68				0.2172	4.8	3	0.6617
	68.5	0.64	0.2384				
69– 74				0.1511	3.3	4	0.1378
	74.5	1.22	0.3895				
75 – 80				0.0753	1.7	3	1.0890

	80.5	1.81	0.4648				
					$X^2$	=	4.6271

Based on the Chi-Square table ( $X^2_{table}$ ) for 5% alpha of significance with  $df\ 6 - 3 = 3$ , it was found  $X^2_{table} = 7.81$ . Because of  $X^2_{score} < X^2_{table}$ , so the initial data of class VIII B distributed normally.

#### B. Test of Homogeneity

Test of homogeneity was done to know whether sample in the research came from population that had same variance or not. In this research, the homogeneity of the test was measured by comparing the obtained score ( $F_{score}$ ) with  $F_{table}$ . Thus, if obtained score ( $F_{score}$ ) was lower than  $F_{table}$  or equal, it could be said that the  $H_0$  was accepted. It meant that the variance was homogeneous.

Table 3. Test of Homogeneity

Variant Sources	Class VIII A	Class VIII B
Sum	1402	1386
N	22	22
$\bar{X}$	63.73	63.00
Variance ( $s^2$ )	81.16	108.00
Standard deviation (s)	9.01	10.39

The researcher was able to test the similarity of the two variants in the previous examination between class VIII A and class VIII B by knowing the mean and the variance. The computation of the test of homogeneity as follow:

$$\begin{aligned}
 F &= \frac{\text{Biggest Variance}}{\text{Smallest Variance}} \\
 &= \frac{108.0000}{81.16} \\
 &= 1.331
 \end{aligned}$$

On a 5% with df numerator  $(nb - 1) = 22 - 1 = 21$  and df denominator  $(nk - 1) = 22 - 1 = 21$ , it was found  $F_{table} = 3.84$ . Because of  $F_{score} \leq F_{table}$ , so, it could be concluded that both class VIII A and class VIII B had no differences. The result showed both classes had similar variants or homogenous.

### C. Second Analysis

The researcher analyzed and tested hypothesis pre-requisites which contained of normality test and homogeneity test before tested the hypothesis that had been mentioned in the chapter two by using t-test (test of difference two variants) in pre-test and post-test.

#### A. Analysis of Pre-test

The control class (class VIII A) and the experimental class (class VIII B) were given a pre-test on 9<sup>th</sup> of November 2010. They were asked to describe their favorite teacher.

##### 1. Test of Normality

The result computation of Chi-Square ( $X^2_{score}$ ) then was compared with table of Chi-Square ( $X^2_{table}$ ) by using 5% alpha of significance. If  $X^2_{score} < X^2_{table}$  meant that the data spread of research result distributed normally.

Based on the research result of students in control class, before they were taught speaking descriptive style using conventional method, was found that the maximum score was 80 and minimal score was 45 and the stretches of score were 35. So, there were 6 classes with length of classes 6. From the computation of frequency distribution, it was found  $(\sum f_i \cdot x_i) = 1363$ , and  $(\sum f_i \cdot x_i^2) = 85860$ . So, the average score ( $\bar{X}$ ) was 61.955 and the standard deviation (S) was 8.2099. After the researcher counted the average score and standard deviation,

table of observation frequency was needed to measure Chi-Square ( $X^2_{score}$ ).

Table 4. Table of the Observation Frequency of Control Class

Class	Bk	$Z_i$	$P(Z_i)$	Ld	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	44.5	-2.13	-0.4832				
45 – 50				0.0647	1.4	3	1.7443
	50.5	-1.40	-0.4185				
51 – 56				0.1717	3.8	5	0.3950
	56.5	-0.66	-0.2468				
57 – 62				0.2733	6.0	7	0.1624
	62.5	0.07	0.0265				
63 – 68				0.2609	5.7	8	0.8907
	68.5	0.80	0.2874				
69 – 74				0.1494	3.3	1	1.5911
	74.5	1.53	0.4368				
75 – 80				0.0513	1.1	2	0.6728
	80.5	2.26	0.4881				
					$X^2$	=	5.4563

Based on the Chi-Square table ( $X^2_{table}$ ) for 5% alpha of significance with  $df\ 6 - 3 = 3$ , it was found  $X^2_{table} = 7.81$ . Because of  $X^2_{score} < X^2_{table}$ , so the initial data of control class distributed normally.

While from the result of students in experimental class, before they were taught speaking descriptive style by using movie, was found that the maximum score was 80 and minimal score was 45 and the stretches of score were 35. So, there were 6 classes with length of classes 6. From the computation of frequency distribution, it was found  $(\sum f_i \cdot x_i) = 1375$ , and  $(\sum f_i \cdot x_i^2) = 87576$ . So, the average score ( $\bar{X}$ ) was 62.5 and the standard deviation (S) was 8.8318. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-Square ( $X^2_{score}$ ).

Table 5. Table of the Observation Frequency of Experimental Class

Class	Bk	$Z_i$	$P(Z_i)$	Ld	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	44.5	-2.04	-0.4792				
45 – 50				0.0663	1.5	3	1.6257
	50.5	-1.36	-0.4129				
51 – 56				0.1613	3.5	2	0.6764
	56.5	-0.68	-0.2515				
57 – 62				0.2515	5.5	5	0.0515
	62.5	0.00	0.0000				
63 – 68				0.2515	5.5	7	0.3883
	68.5	0.68	0.2515				
69– 74				0.1613	4.0	3	0.2648
	74.5	1.36	0.4129				
75 – 80				0.0663	1.5	2	0.2001
	80.5	2.04	0.4792				
					$X^2$	=	3.2067

Based on the Chi-Square table ( $X^2_{table}$ ) for 5% alpha of significance with  $df\ 6 - 3 = 3$ , it was found  $X^2_{table} = 7.81$ . Because of  $X^2_{score} < X^2_{table}$ , so the initial data of experimental class distributed normally.

## 2. Test of Homogeneity

In this research, 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  $H_0$  was accepted. It was meant that the variance was homogeneous.

Table 6. Test of Homogeneity (Pre-test)

Variant Sources	Control C	Experimental C
Sum	1360	1370
N	22	22
$\bar{X}$	61.82	62.27
Variance ( $s^2$ )	67.97	75.54
Standard deviation (s)	8.24	8.69

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

$$\begin{aligned} F &= \frac{\textit{Biggest Variance}}{\textit{Smallest Variance}} \\ &= \frac{75.54}{67.97} \\ &= 1.111 \end{aligned}$$

On a 5% with df numerator (nb - 1) = 22 - 1 = 21 and df denominator (nk - 1) = 22 - 1 = 21, it was found  $F_{table} = 3.84$ . Because of  $F_{score} \leq F_{table}$ , so it could be concluded that both experimental and control class had no differences. The result showed both classes had similar variants or homogenous.

### 3. Test of Difference Two Variants in Pre-test between Experimental and Control Class

After counting the standard deviation and variance, it could be concluded that both classes have no differences in the test of similarity between two variances in pre-test score. So, to differentiate whether the students' results of speaking descriptive style in control and experimental class were significant or not, the researcher used t-test to test the hypothesis. The researcher used formula:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

Where:

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

Based on table 6, the researcher had to find out S by using the formula above:

$$S = \sqrt{\frac{(22-1)75.5411 + (22-1)67.9654}{22 + 22 - 2}}$$

$$= 8.47073$$

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

$$t = \frac{62.27 - 61.82}{8.47073 \sqrt{\frac{1}{22} + \frac{1}{22}}}$$

$$= 0.178$$

After getting the result, then it would be consulted to the critical score of  $t_{table}$  to check whether the difference is significant or not. For  $\alpha = 5\%$  with  $df = 22 + 22 - 2 = 42$ , it was found  $t_{table(0.975)(42)} = 1.99$ . Because of  $t_{score} < t_{table}$ , so it could be concluded that there was no significance of difference between the control and experimental class. It meant that both control and experimental class had same condition before getting treatments.

## B. Analysis of Post-test

The control class and experimental class were given a post test on 15<sup>th</sup> of November 2010. Post-test was conducted after doing all treatments. Movie was used as media in the speaking descriptive style teaching to experimental class. While for students in control class, the researcher gave treatments without movie. Post-test was aimed to measure students' ability in speaking descriptive style after treatments. Both classes were asked to describe someone they love.

### 1. Test of Normality

It was same to test of normality in the pre-test. The result computation of Chi-Square ( $X^2_{score}$ ) then was compared with table of Chi-Square ( $X^2_{table}$ ) 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 A students in the control class after they got usual treatments in the speaking descriptive style teaching, they reached the maximum score 85, minimum score 50 and the stretches of score were 35. So, there were 6 classes with length of classes 5. From the computation of frequency distribution, it was found  $(\sum f_i \cdot x_i) = 1449$ , and  $(\sum f_i \cdot x_i^2) = 96943.5$ . So, the average score ( $\bar{X}$ ) was 65.8636 and the standard deviation (S) was 8.4715. 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-Square ( $X_{score}^2$ ).

Table 7. Table of the Observation Frequency of Control Class

Class	Bk	$Z_i$	$P(Z_i)$	Ld	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	49.5	-1.93	-0.4733				
50 – 55				0.0839	1.8	3	0.7219
	55.5	-1.22	-0.3894				
56 – 61				0.1926	4.2	3	0.3617
	61.5	-0.52	-0.1968				
62 – 67				0.2733	6.0	10	2.6428
	67.5	0.19	0.0766				
68 – 73				0.2397	5.3	7	0.5648
	73.5	0.90	0.3163				
74 – 79				0.1299	2.9	5	1.6036
	79.5	1.61	0.4463				
80 – 85				0.0435	1.0	2	1.1361
	85.5	2.32	0.4898				
					$X^2$	=	7.0309

Based on the Chi-Square table ( $X_{table}^2$ ) for 5% alpha of significance with dk  $6 - 3 = 3$ , it was found  $X_{table}^2 = 7.81$ . Because of  $X_{score}^2 < X_{table}^2$ , so the data of control class after getting treatments distributed normally.

While from the result of VIII B students in experimental class, after they were taught speaking descriptive style by using movie, was found that the maximum score was 90, minimal score was 55 and the stretches of score were 35. So, there were 6 classes with length of classes 5. From the computation of frequency distribution, it was found  $(\sum f_i \cdot x_i) = 1601$ , and  $(\sum f_i \cdot x_i^2) = 118505.5$ . So, the average score  $(\bar{X})$  was 72.773 and the standard deviation (S) was 9.75012. After seeing the average score of students in experimental class, it could be concluded that there was an improvement of students' score after they got treatments by using movie. After the researcher counted the average score and standard deviation, table of observation frequency was needed to measure Chi-Square ( $X^2_{score}$ ).

Table 8. Table of the Observation Frequency of Experimental Class

Class	Bk	$Z_i$	$P(Z_i)$	Ld	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	54.5	-1.87	-0.4695				
55–60				0.0736	1.6	3	1.1771
	60.5	-1.26	-0.3959				
61–66				0.1559	3.4	3	0.0540
	66.5	-0.64	-0.2400				
67–72				0.2288	5.0	4	0.2126
	72.5	-0.03	-0.0112				
73–78				0.2327	5.1	7	0.6910
	78.5	0.59	0.2215				
79–84				0.1639	3.6	1	1.8839
	84.5	1.20	0.3855				
85–90				0.0800	1.8	4	2.8500
	90.5	1.82	0.4655				
					$X^2$	=	6.8686

Based on the Chi-Square table ( $X^2_{table}$ ) for 5% alpha of significance with  $df\ 6 - 3 = 3$ , it was found  $X^2_{table} = 7.81$ . Because of  $X^2_{score} < X^2_{table}$ , so the data of experimental class after getting treatments distributed normally.

## 2. Test of Homogeneity

By knowing the mean and variance, the researcher was able to test the similarity of the two variance in the post-test between control and experimental class.

Table 9. Test of Homogeneity (Post-test)

Variance Sources	Control C	Experimental C
Sum	1455	1600
N	22	22
$\bar{X}$	66.14	72.73
Variance ( $s^2$ )	64.12	94.59
Standard deviation (s)	8.01	9.73

The computation of the test of homogeneity as follows:

$$\begin{aligned}
 F &= \frac{\text{Biggest Variance}}{\text{Smallest Variance}} \\
 &= \frac{94.59}{64.12} \\
 &= 1.475
 \end{aligned}$$

On a 5% with df numerator (nb - 1) = 22 - 1 = 21 and df denominator (nk - 1) = 22 - 1 = 21, it was found  $F_{table(0.025)(22;22)} = 3.84$ . Because of  $F_{score} \leq F_{table}$ , so it could be concluded that both control and experimental class had no differences. The result showed both classes had similar variance or homogenous.

## 3. Test of Difference Two Variants in Post-test between Experimental and Control Class

It was same to test of difference two variants in the pre-test that both classes have no differences in the test of similarity between two variances in post-test score. So, to differentiate if the students' results of speaking descriptive style in control and experimental class after getting treatments were significant or not, the researcher used t-test. To get the difference between both classes, the researcher used formula:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

Where:

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

Based on table 9, the researcher had to find out S by using the formula above:

$$\begin{aligned} S &= \sqrt{\frac{(22 - 1)94.5887 + (22 - 1)64.1234}{22 + 22 - 2}} \\ &= 8.9082 \end{aligned}$$

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

$$\begin{aligned} t &= \frac{72.73 - 66.14}{8.9082 \sqrt{\frac{1}{22} + \frac{1}{22}}} \\ &= 2.454 \end{aligned}$$

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  $\alpha = 5\%$  with  $df = 22 + 22 - 2 = 42$ , it was found  $t_{table(0.95)(42)} = 1.67$ . Because of  $t_{score} > t_{table}$ , so it could be concluded that there was significance of difference between the control and experimental class. It meant that experimental class was better than control class after getting all treatments.

After doing the analysis, the researcher concluded that 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 speaking descriptive style teaching using movie and without movie for the eighth grade students of SMP Cokroaminoto Banjarmangu Banjarnegara. In this research,

speaking descriptive style teaching with movie was more effective than speaking descriptive style teaching without movie. It can be seen from the result of the test. Where the students taught speaking by using movie got higher scores than the students taught speaking without movie.

#### **4. Discussions**

##### **A. Students' Condition in Control Class**

In the control class, students were taught by using conventional method, so, there wasn't new experience to students. Teacher used text as an aid in the teaching learning process. Students could not enjoy in speaking and explore their ideas. It was proven with the average of the control class in the post-test was 66.14 which was lower than the experimental class was 72.73. Although, the average of the control class in the pre-test was 61.82 and the experimental class was 62.27.

##### **B. Students' Condition in Experimental Class**

Before getting treatments, the students are gave the pre- test. In the pre-test, students' ability in speaking descriptive style was low. From the result of pre-test, it was known that students had many difficulties in describing someone. Their speech was influenced by Indonesian language they used the wrong grammar and students' word choice (fluency) was also far from being perfect. To minimize the number of students' mistakes in their speech, the researcher gave correction to students' performance. From the correction of their mistakes, students' were supposed to learn more and improve their ability in speaking.

Based on the analysis of students' ability, it was found that after getting treatment, students' ability improved. Students were given movie in the treatments. They were given adventure movie and

musical and dance movie, because the researcher thought that the movies were happening and could make students enjoy in their lesson.

The finding showed that students' ability was in good level; although, there were some mistakes that students had made in grammar. It could be concluded that the implementation of using movie as media in the speaking descriptive style teaching was effective. It was proven with students' average score in experimental class was higher than control class.

Before doing t-test analysis, it was found that the t-score ( 2.454) was higher than t-table by using 5% alpha of significance (1.68). Since  $t_{score} > t_{table}$ , it proved that there was a significant difference between the improvement of students achievement that was taught using movie and without movie.

#### C. Students Average Scores in Pre-test and Post-test

The average score for control class was 61.82 in pre-test and 66.14 in post-test. The average score for experimental class was 62.27 in pre-test and 72.73 in post-test. The complete computation can be seen in appendix 7 – 11. And the following was the simple tables of pre and post-test students' average score.

Table 11. The Pre-test and Post-test Students' Average Scores of the Control and Experimental Class

No	Class	The Average Percentage of Pre-test	The Average Percentage of Post-test
1	Control	61.82	66.14
2	Experimental	62.27	72.73

Table 12. The Pre-test and Post-test Students' Average Scores of the Control and Experimental Class

No	Component of Speaking	Class	The Average Score of Pre-test	The Average Score of Post-test
1	Pronunciation	Control	3,13	3,40
		Experimental	3,36	3,81
2	Grammar	Control	2,73	2,86
		Experimental	2,72	3,09
3	Vocabulary	Control	3,27	3,54
		Experimental	3,18	3,81
4	Fluency	Control	3,23	3,40
		Experimental	3,22	3,81