

## CHAPTER IV

### FINDINGS AND DISCUSSION

#### A. First Analysis

After the researcher was done some treatments for experimental group and control group. There are some differences students' achievement between experimental group and control group.

1. Students' achievement of experimental group after was taught by using video clip
  - a) Students are more enjoyable in teaching learning process because using video clip is very interesting.
  - b) Students get some new vocabulary from video clip.
  - c) Students can learn how to pronounce some vocabulary as a native speaker. Students not only watch video clip but also hear native speaker's speaking, students can imitate the speaker says.
  - d) Students can understand hortatory exposition text easily. Video clip gives describing a case with some arguments and persuade the listeners to do something.
  - e) Students have idea when they present and retell hortatory exposition text orally.
  - f) Students are more fluency in speaking hortatory exposition text.
2. Students' achievement of control group after was taught without video clip
  - a) Students feel bore in teaching learning process because using text book only.
  - b) Teacher has to explain hortatory exposition text hardly because Students just read a text and they get difficulties to understand hortatory exposition text.

- c) Students lost meaning when they have to present hortatory exposition text orally. They get difficulties to memorize vocabulary from text book.

It was researcher's analysis after done some treatments for experimental and control group. Actually, there are some reasons that video clip is effective to facilitate students in teaching speaking hortatory exposition text.

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 social 3 and class social 4 were normally and homogeneous.

### 1. Test of Normality

Test of normality in pre-requisite test was used to find out whether data of class social 3 and class social 4 which had been collected from the previous examination score from the teacher came from normal distribution or not. The result computation of Chi-quadrade ( $X^2_{score}$ ) then was compared with table of Chi-quadrade ( $X^2_{table}$ ) 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 social 3, before they were chosen as the experimental class, was found that the maximum score was 80 and minimal score was 60. The stretches of score were 20. So, there were 7 classes with length of classes 3. From the computation of frequency distribution, it was found ( $\sum f_i x_i$ ) = 2756, and ( $\sum f_i x_i^2$ ) = 200900. So, the average score ( $\bar{X}$ ) was 72.526 and the standard deviation (S) was 5.243. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-quadrade ( $X^2_{score}$ ).

Table 1. Table of the Observation Frequency of Class Social 3

Class	Bk	$Z_i$	$P(Z_i)$	Luas Daerah	$E_i$	$O_i$	$\frac{(O_i - E_i)^2}{E_i}$
	59.5	-2.48	-0.4935				
60 – 62				0.0214	0.8	2	1.7234
	62.5	-1.91	-0.4721				
63 – 65				0.0622	2.4	3	0.1713
	65.5	-1.34	-0.4099				
66 – 68				0.1312	5.0	3	0.7899
	68.5	-0.77	-0.2787				
69 – 71				0.2011	7.6	6	0.3529
	71.5	-0.20	-0.0776				
72 – 74				0.2243	8.5	8	0.0320
	74.5	0.38	0.1467				
75 – 77				0.1819	6.9	9	0.6314
	77.5	0.95	0.3286				
78 – 80				0.1073	4.1	7	2.0977
	80.5	1.52	0.4358				
					$X^2$	=	5.7986

Based on the Chi-quadrade table ( $X^2_{table}$ ) for 5% alpha of significance with  $df\ 7 - 3 = 4$ , it was found  $X^2_{table} = 9.49$ . Because of  $X^2_{score} < X^2_{table}$ , so the initial data of class social 3 distributed normally.

While from the previous examination result of class social 4 before they were chosen as the control class, was found that the maximum score was 80 and minimal score was 60. The stretches of score were 20. So, there were 7 classes with length of classes 3. From the computation of frequency distribution, it was found  $(\sum f_i \cdot x_i) = 2657$ , and  $(\sum f_i \cdot x_i^2) = 187031$ . So, the average score ( $\bar{X}$ ) was 69.921 and the standard deviation (S) was 5.814. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-quadrade ( $X^2_{score}$ ).

Table 2. Table of the Observation Frequency of Class Social 4

Class	Bk	$Z_i$	$P(Z_i)$	Luas Daerah	$E_i$	$O_i$	$\frac{(O_i - E_i)^2}{E_i}$
	59.5	-1.79	-0.4635				
60 – 62				0.0644	2.4	5	2.6662
	62.5	-1.28	-0.3991				
63 – 65				0.1226	4.7	6	0.3862
	65.5	-0.76	-0.2765				
66 – 68				0.1799	6.8	4	1.1778
	68.5	-0.24	-0.0965				
69 – 71				0.2036	7.7	7	0.0699
	71.5	0.27	0.1070				
72 – 74				0.1775	6.7	6	0.0823
	74.5	0.79	0.2845				
75 – 77				0.1193	4.5	6	0.4749
	77.5	1.30	0.4038				
78 – 80				0.0618	2.3	4	1.1630
	80.5	1.82	0.4656				
					$X^2$	=	6.0203

Based on the Chi-quadrade table ( $X^2_{table}$ ) for 5% alpha of significance with dk  $7 - 3 = 4$ , it was found  $X^2_{table} = 9.49$ . Because of  $X^2_{score} < X^2_{table}$ , so the initial data of class social 4 distributed normally.

### 3. 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 Social 3	Class Social 4
Sum	1606	1578
N	38	38
$\bar{X}$	73.000	71.73
Variance ( $s^2$ )	24.76	36.30
Standard deviation (s)	4.98	6.03

The researcher was able to test the similarity of the two variants in the previous examination between class social 3 and class social 4 by knowing the mean and the variance. The computation of the test of homogeneity as follow:

$$\begin{aligned}
 F &= \frac{\text{Biggest Variance}}{\text{Smallest Variance}} \\
 &= \frac{36.3000}{24.7600} \\
 &= 1.466
 \end{aligned}$$

On a 5% with df numerator ( $nb - 1$ ) = 38 - 1 = 37 and df denominator ( $nk - 1$ ) = 38 - 1 = 37, it was found  $F_{table} = 1.73$ . Because of  $F_{score} \leq F_{table}$ , so, it could be concluded that both class social 3 and class social 4 had no differences. The result showed both classes had similar variants or homogenous.

## B. 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.

## 1. Analysis of Pre-test

The experimental class (class social 3) and the control class (class social 4) were given a pre-test on 15<sup>th</sup> of January 2011. They were asked to give arguments on smoking in health.

### a. Test of Normality

The result computation of Chi-quadrade ( $X^2_{score}$ ) then was compared with table of Chi-quadrade ( $X^2_{table}$ ) 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 experimental class, before they were taught speaking hortatory exposition text by using video clip, was found that the maximum score was 76 and minimal score was 52 and the stretches of score were 24. So, there were 7 classes with length of classes 4. From the computation of frequency distribution, it was found ( $\sum f_i x_i$ ) = 2445, and ( $\sum f_i x_i^2$ ) = 159330. So, the average score ( $\bar{X}$ ) was 64.342 and the standard deviation (S) was 7.3761. 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 Experimental Class

Class	Bk	$Z_i$	$P(Z_i)$	Luas Daerah	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	51.5	-1.74	0.4592				
52 – 55				0.0745	2.8	5	1.6639
	55.5	-1.20	0.3847				
56 – 59				0.1405	5.3	7	0.5181
	59.5	-0.66	0.2442				
60 – 63				0.1988	7.6	6	0.3197
	63.5	-0.11	0.0454				
64 – 67				0.2112	8.0	6	0.5107
	67.5	0.43	0.1657				
68 – 71				0.1684	6.4	7	0.0567
	71.5	0.97	0.3341				
72 – 75				0.1007	3.8	4	0.0077
	75.5	1.51	0.4348				
76 – 79				0.0452	1.7	3	0.9546
	79.5	2.06	0.4801				
					$X^2$	=	4.0313

Based on the Chi-Square table ( $X^2_{table}$ ) for 5% alpha of significance with dk  $7 - 3 = 4$ , it was found  $X^2_{table} = 9.49$ . Because of  $X^2_{score} < X^2_{table}$ , so the initial data of experimental class distributed normally.

While from the result of students in control class, before they were taught speaking hortatory exposition text by using conversational method, was found that the maximum score was 76 and minimal score was 40 and the stretches of score were 36. So, there were 7 classes with length of classes 6. From the computation of frequency distribution, it was found  $(\sum f_i x_i) = 2389$ , and  $(\sum f_i x_i^2) = 153112$ . So, the average score ( $\bar{X}$ ) was 62.9 and the standard deviation (S) was 8.8819. After counting the

average score and standard deviation, table of observation frequency was needed to measure Chi-quadrade ( $X^2_{score}$ ).

Table 5. Table of the Observation Frequency of Control Class

Class	Bk	$Z_i$	$P(Z_i)$	Luas daerah	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	39.5	-2.63	-0.4957				
40 _ 45				0.0210	0.8	2	1.8093
	45.5	-1.96	-0.4747				
46 _ 51				0.0750	2.9	1	1.2015
	51.5	-1.28	-0.3997				
52 _ 57				0.1725	6.6	7	0.0302
	57.5	-0.60	-0.2272				
58 _ 63				0.2556	9.7	9	0.0521
	63.5	0.07	0.0283				
64 _ 69				0.2440	9.3	11	0.3218
	69.5	0.75	0.2724				
70 _ 75				0.1502	5.7	5	0.0873
	75.5	1.42	0.4225				
76 _ 81				0.0595	2.3	3	0.2409
	81.5	2.10	0.4820				
					$X^2$	=	3.7431

Based on the Chi-Square table ( $X^2_{table}$ ) for 5% alpha of significance with dk  $7 - 3 = 4$ , it was found  $X^2_{table} = 9.49$ . Because of  $X^2_{score} < X^2_{table}$ , so the initial data of control class distributed normally.

#### b. 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 meant that the variance was homogeneous.



Table 6. Test of Homogeneity (Pre-test)

Variant Sources	Experimental C	Control C
Sum	2388	2368
N	38	38
$\bar{X}$	62.84	62.32
Variance ( $s^2$ )	55.41	75.22
Standard deviation (s)	7.81	8.67

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:

$$\begin{aligned}
 F &= \frac{\text{Biggest Variance}}{\text{Smallest Variance}} \\
 &= \frac{75.2200}{54.4100} \\
 &= 1.382
 \end{aligned}$$

On a 5% with df numerator ( $nb - 1$ ) =  $38 - 1 = 37$  and df denominator ( $nk - 1$ ) =  $38 - 1 = 37$ , it was found  $F_{table} = 1.73$ . 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.

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

After counted 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 hortatory exposition text in experimental and control 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:

$$\begin{aligned} S &= \sqrt{\frac{(38-1)54.4100 + (38-1)75.7900}{38+38-2}} \\ &= 8.06846 \end{aligned}$$

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

$$\begin{aligned} t &= \frac{62.84 - 62.32}{8.06848 \sqrt{\frac{1}{38} + \frac{1}{38}}} \\ &= 0.284 \end{aligned}$$

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  $df = 38 + 38 - 2 = 70$ , 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 experimental and control class. It meant that both experimental and control class had same condition before getting treatments.

## 2. Analysis of Post-test

The control class and experimental class were given a post test on 27<sup>th</sup> of January 2011. Post-test was conducted after doing all treatments. Video clip was used as media in the teaching speaking

hortatory exposition text to experimental class. While for students in control class, the researcher gave treatments without video clip. Post-test was aimed to measure students' ability in speaking hortatory exposition text after treatments. Both classes were asked to give arguments on smoking in health.

a. Test of Normality

It was same to test of normality in the pre-test. The result computation of Chi-Square ( $X_{score}^2$ ) then was compared with table of Chi-quadrante ( $X_{table}^2$ ) 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 Social 3 students in the experimental class after they were taught speaking hortatory exposition text by using video clip, they reached the maximum score 84, minimum score 60 and the stretches of score were 24. So, there were 7 classes with length of classes 4. From the computation of frequency distribution, it was found ( $\sum f_i \cdot x_i$ ) = 2909, and ( $\sum f_i \cdot x_i^2$ ) = 224145.5. So, the average score ( $\bar{X}$ ) was 76.5526 and the standard deviation (S) was 6.26853. 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 video clip.

After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-quadrante ( $X_{score}^2$ ).

Table 7. Table of the Observation Frequency of Experimental

C			Bk	$Z_i$	$P(Z_i)$	Luas Daerah	$E_i$	$O_i$	$\frac{(O_i - E_i)^2}{E_i}$
			59.5	-2.72	-0.4967				
60	a	63				0.0154	0.6	1	0.2941
	s		63.5	-2.08	-0.4813				
64	-	67				0.0557	2.1	3	0.3691
	s		67.5	-1.44	-0.4257				
68	-	71				0.1358	5.2	2	1.9343
			71.5	-0.81	-0.2899				
72	-	75				0.2232	8.5	11	0.7475
	B		75.5	-0.17	-0.0667				
76	-	79				0.2476	9.4	8	0.2106
a			79.5	0.47	0.1809				
80	-	83				0.1852	7.0	7	0.0002
s			83.5	1.11	0.3661				
e 84	-	87				0.0935	3.6	6	1.6855
d			87.5	1.75	0.4596				
							$X^2 =$		5.2413

Based on the Chi-Square table ( $X^2_{table}$ ) for 5% alpha of significance with  $dk\ 7 - 3 = 4$ , it was found  $X^2_{table} = 9.49$ . Because of  $X^2_{score} < X^2_{table}$ , so the data of experimental class after getting treatments distributed normally.

While from the result of Social 4 students in control class, after they were taught speaking hortatory exposition text by using conventional method, was found that the maximum score was 80, minimal score was 56 and the stretches of score were 24. So, there were 7 classes with length of classes 4. From the computation of frequency distribution, it was found  $(\sum f_i x_i) = 2697$ , and  $(\sum f_i x_i^2) = 193574$ . So, the average score ( $\bar{X}$ ) was 70.9737 and the standard deviation (S) was 7.63611. It meant that there was an improvement of students' score after they got treatments.

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 Control class

Class	Bk	$Z_i$	$P(Z_i)$	Luas Daerah	$E_i$	$O_i$	$\frac{(O_i - E_i)^2}{E_i}$
	55.5	-2.03	-0.4786				
56 – 59				0.0451	1.7	4	3.0474
	59.5	-1.50	-0.4335				
60 – 63				0.0974	3.7	4	0.0242
	63.5	-0.98	-0.3361				
64 – 67				0.1607	6.1	4	0.7274
	67.5	-0.45	-0.1754				
68 – 71				0.2029	7.7	6	0.3791
	71.5	0.07	0.0275				
72 – 75				0.1959	7.4	7	0.0263
	75.5	0.59	0.2233				
76 – 79				0.1446	5.5	8	1.1428
	79.5	1.12	0.3679				
80 – 83				0.0816	3.3467	5	0.8167
	83.5	1.64	0.4495				
					$X^2 =$		6.1640

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

#### b. 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 experimental and control class.

Table 9. Test of Homogeneity (Post-test)

Variance Sources	Experimental C	Control C
Sum	2852	2640
N	38	38
$\bar{X}$	75.05	69.47
Variance ( $s^2$ )	38.29	58.31
Standard deviation (s)	6.27	7.64

The computation of the test of homogeneity as follows:

$$\begin{aligned}
 F &= \frac{\text{Biggest Variance}}{\text{Smallest Variance}} \\
 &= \frac{58.31}{38.29} \\
 &= 1.484
 \end{aligned}$$

On a 5% with df numerator ( $nb - 1$ ) =  $38 - 1 = 37$  and df denominator ( $nk - 1$ ) =  $38 - 1 = 37$ , it was found  $F_{table(0.025)(22:22)} = 1.92$  cause 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 variance or homogenous.

c. 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 hortatory exposition text in experimental and control 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:

$$\begin{aligned} S &= \sqrt{\frac{(38-1)39.2900 + (38-1)58.3100}{38+38-2}} \\ &= 6.9857 \end{aligned}$$

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

$$\begin{aligned} t &= \frac{75.05 - 69.47}{6.9857 \sqrt{\frac{1}{38} + \frac{1}{38}}} \\ &= 3.481 \end{aligned}$$

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  $df = 38 + 38 - 2 = 70$ , it was found  $t_{table(0.95)(42)} = 1.99$ . Because of  $t_{score} > t_{table}$ , so it could be concluded that there was significance of difference between the experimental and control 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 teaching speaking hortatory exposition text using video clip and without video clip for the eleventh grade students of MAN 1 Kebumen. In this research, teaching speaking hortatory exposition text with video clip was more effective than teaching speaking hortatory exposition text without video clip. It can be seen from the result of the test. Where the students taught

speaking by video clip got higher scores than the students taught speaking without video clip.

## **C. Discussions**

### **1. 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 69.47 which was lower than the experimental class was 75.05. Although, the average of the control class in the pre-test was 62.32 and the experimental class was 62.84.

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

Before getting treatments, the students are gave the pre- test. In the pre-test, students' ability in speaking hortatory exposition text was low. From the result of pre-test, it was known that students had many difficulties in giving arguments. 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 well-organized 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 hortatory exposition 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 performance, 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 hortatory exposition text.

Based on the analysis of students' ability, it was found that after getting treatment, students' ability improved. Students were given video clip in the treatments. They were given video clip of cell phone in classroom, learning English and smoking in health, because the researcher thought that the video clip 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 video clip as media in the teaching speaking hortatory exposition text 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 (3.481) was higher than t-table by using 5% alpha of significance (1.99). Since  $t_{score} > t_{table}$ , it proved that there was a significant difference between the improvement of students achievement that was taught using video clip and without video clip.

### **3. Students Average Scores in Pre-test and Post-test**

The average score for control class was 62.32 in pre-test and 69.47 in post-test. The average score for experimental class was 62.84 in pre-test and 75.05 in post-test. 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	Experimental	62.84	75.05
2	Control	62.32	69.47

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

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

#### D. 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.