CHAPTER IV

RESULT AND DISCUSSION

This chapter covers the research findings, discussion and verification of the hypothesis of the research. The entire data in this chapter are provided to decide whether or not the formulated hypothesis is accepted. In other words, the data are presented and analyzed to give detailed explanations of the effectiveness of animation videos in helping the students enhance their reading higher order thinking skill.

A. THE DESCRIPTION OF DATA

The objective of this research is to know the effectiveness of using animation videos on students' higher order thinking skill. The researcher did the research by administering pretest and posttest. It was VIII H as experimental group that consisted of 38 students, while VIII G as control group that consisted of 38 students.

The instrument of this research test was used. This test consisted of reading higher order thinking skill test. The material of higher order thinking skill focused on narrative text. Moreover, the test was divided into two; pretest and posttest. The pretest was given both experimental and control group in order to know the prior knowledge both two groups. Then, after getting the result of pretest, the researcher conducted treatment to experimental group by using animation videos while the control group conducted treatment by using conventional strategy.

Thus, the researcher gave posttest both two groups, in order to know whether by using that strategies gave significant effect to enhance students' higher order thinking skill.

1. **Result of pretest higher order thinking skill for experimental and control groups**

   The primary instrument of this research was used to investigate the difference of vocabulary test both experimental and control groups as pretest. It was administered before the treatment by using animation videos for experimental group while treatment by using conventional strategy for control group. The pretest in the control group was done on June 3th, 2019 and pretest in the experimental group was done on June 5th, 2019. The students did the test for about 90 minutes.

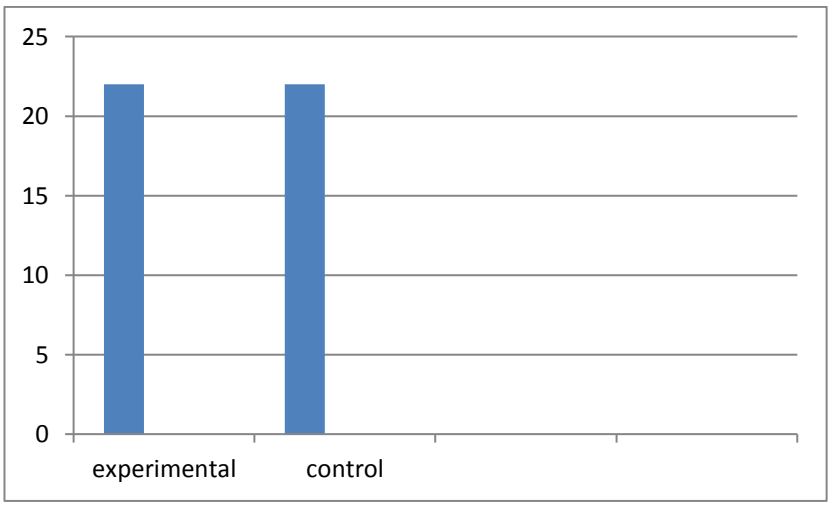
   The result of pretest from the experimental and control groups analyzed using descriptive statistics to organize the students' higher order thinking skill scores. The brief descriptive data of the pretest scores reported in Table 4.1

   Table 4.1 Descriptive data of pretest score of reading higher order thinking skill for experimental and control groups

Group	N	Range	Min	Max	Mean	Std. Deviation
Experimental Group	38	24	14	38	21,82	1,195
Control Group	38	24	12	36	22,13	0,986

Based on Table 4.1, the scores of students in the experimental group ranged from 14 to 38 with standard deviation (SD) of 1,195 while the scores of students in the control group ranged from 12 to 36 with standard deviation (SD) of 0,986. Moreover, the mean scores from the experimental and control groups were 21,82 and 22,13 respectively. The mean difference between the groups displayed in Figure 4.1

Figure 4.1 mean difference of pretest between the experimental and control groups



The difference of the mean score from the experimental and control groups was 0,31. It was concluded that the mean score of the experimental group was lower than the score of the control group. The detail of the students' pretest score of vocabulary test in each group was available in appendix ….

2. Result of posttest reading higher order thinking skill for experimental and control groups

The primary instrument of this research was used to investigate the difference of reading higher order thinking skill test both experimental and control groups as posttest. It was administered after the treatment by using animation videos for experimental group while treatment by using conventional strategy for control group. The posttest in the control group was done on July 26th, 2019 and posttest in the experimental group was done on Wednesday, July 224th, 2019. The students did the test for about 90 minutes.

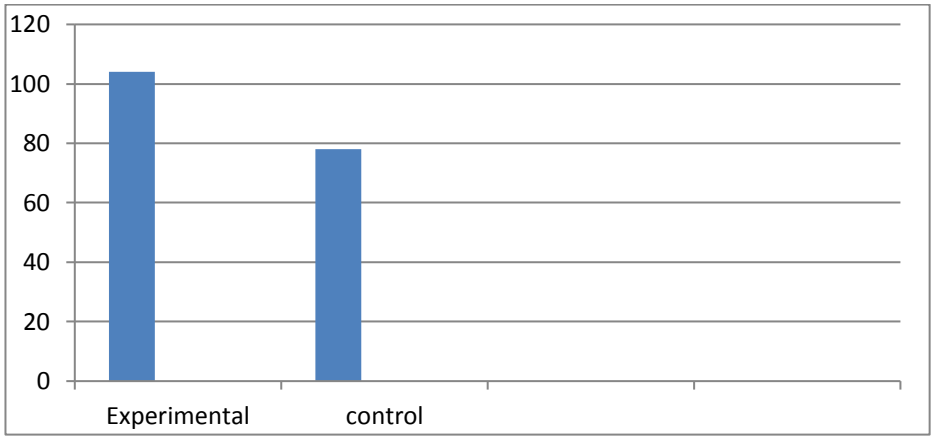
The result of posttest from the experimental and control groups analyzed using descriptive statistics to organize the students' reading higher order thinking skill scores. The brief descriptive data of the posttest scores reported in Table 4.2

Table 4.2 Descriptive data of posttest score of reading higher order thinking skill for experimental and control groups

Group	N	Range	Min	Max	Mean	Std. Deviation
Experimental Group	38	80	78	158	104,58	24,198
Control Group	38	36	62	98	78,74	12,463

Based on Table 4.2, the scores of students in the experimental group ranged from 78 to 158 with standard deviation (SD) of 24,198 while the scores of students in the control group ranged from 62 to 98 with standard deviation (SD) of 12,463. Moreover, the mean scores from the experimental and control groups were 104,58 and 78,74 respectively. The mean difference between the groups displayed in Figure 4.2

Figure 4.2 mean difference of posttest between the experimental and control groups



The difference of the mean score from the experimental and control groups was 25,84. It was concluded that the mean score of the experimental group was higher than the score of the control group. The detail of the students' posttest score of reading test in each group was available in appendix ….

3. Result normality and homogeneity

The quantitative analysis of the data in this research involved the investigation of the fulfillment of the statistical assumption after

descriptive statistical employed. Normality and homogeneity test used SPSS program 25.0 versions performed to investigate whether or not the data fulfilled the statistical assumptions. The result becomes the prerequisite basis in selecting parametric or non-parametric statistics for hypotheses testing.

a. Normality

Normality testing purposed to analyze the hypotheses in other word to examine the data of students' reading higher order thinking skill scores were normal distribution. The normality test was used Shapiro-Wilk through SPSS program 25.0 version. The data stated normally distributed if the ρ-value was greater than 0.05 significance level (ρ-value > sig. 0.05). The result of the normality tests was briefly presented in following table.

Table 4.3 The Result of the Normality Test both of groups on higher order thinking skill

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
Posttest	Experimental	.233	38	.000	.859	38	.865
	Control	.111	38	.200*	.946	38	.650

a. Lilliefors Significance Correction

The normality of the students' higher order thinking skill scores were tested on the basis of the groups and the result of the normality test

shown in the table 4.3 revealed that the data were distributed normally as all the ρ-value were greater than 0.05 level of significance.

b. Homogeneity

Homogeneity testing used to examine whether or not the data reflecting the reading higher order thinking skill of students in the experimental and control groups were equal and homogenous. Levene's Statistic through SPSS Program 25.0 version performed to test homogeneity. The data were considered equal and homogeneous if the ρ-value was greater than 0,05 significance level (ρ-value > sig .05). the brief results of homogeneity test on reading higher order thinking skill test was reported in Table 4.4

Table 4.4 Result of The Homogeneity Test

Test of Homogeneity of Variances

Posttest

Levene Statistic	df1	df2	Sig.
16.640	1	74	.685

Based on the ρ-value in Table 4.7 the reading higher order thinking skill scores of students in experimental and control groups were homogeneous, the detailed result showed in appendix ….

4. Result of data analysis

Based on the result from the data analysis on chapter 3, the research hypotheses were tested in this part. The hypothesis verifies used Independent Sample t-test.

The objective of testing hypothesis is to test the statistical hypothesis using the result of independent sample t-test to determine the effectiveness of animation videos in student's higher order thinking skill. To test the statistical hypothesis, the researcher changed it into a null hypothesis (symbolized H_0). The first hypothesis was, the students reading higher order thinking skill had better improved achievement significantly by using animation videos than those improved by using conventional strategy. The null hypothesis (H_0) is, the students' reading higher order thinking skill improved by using animation videos has no difference from that improved by conventional strategy. After the null hypothesis was formulated then the reading comprehension test scores were analyzed. The results of data analysis become the empirical evidence to accept or reject H0. The criterion for acceptance or rejection of the H0 was a level of significance .05 (95% confidence). Table 4.9 shown the results of independent sample t-test computation on reading higher order thinking skill.

Table 4.5 t-test for Independent Sample to know the significant difference between students' higher order thinking skill of experimental group and control group

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Posttest	Equal variances assumed	16.640	.000	5.853	74	.875	25.842	4.416	17.044	34.640
	Equal variances not assumed			5.853	55.340	.680	25.842	4.416	16.994	34.690

Based on the result of independent sample test in Table 4.9, it was interpreted that the result of the F-test showed that ρ-value (sig) was 0.875 and it was bigger than 0.05. In consequence, the null hypothesis was not rejected. As such, *equal variance assumed* is used.

On the basis of the result of the F-test, the t-test with equal variances assumed was used. This test revealed that the t-value was 5,853, with the df = 74, and the ρ-value (two-tailed) was 0.000. Given that ρ-value was less than $\alpha = 0.05$, so the null hypothesis was rejected.

It can be concluded on the basis of statistical calculation it can be stated that the students' reading skill had better improved achievement significantly by using task-based language teaching than those improved with using conventional strategy.

B. DISCUSSION

The discussion of the findings presented about interpretation of research findings. The interpretation of the findings was made by relating the findings to the existing theories and to the relevant theories.

This research was to investigate the effectiveness of animation videos teaching compared to the conventional teaching strategy on reading higher order thinking skill is especially in students' higher order thinking skill. The result of this research was in line with some previous studies which studied the animation videos on students' higher order thinking skill: Anderson (2003), Snow (2002), Patel and Jain (2008), and Ouda (2012).