CHAPTER III

RESEARCH METHOD

A.RESEARCH DESIGN

Research design played an important role in a research because the quality of research greatly depended on the design. In this research, the writer used the form of quantitative approach to analyze the data. According to Michael J Wallace, sates, "Quantitative is broadly used to describe what can be counted or measured and can therefore be considered objective".[1]

1. Experimental Research

There are two groups in experimental research. They are: experimental group and control group. An experimental group received a new treatment while control group received a usual treatment. According to Nunan, states, "experiment is designed to collect data in such a way that threats to the reliability and validity of the research is ministered".[2] This study used pre-test and post-test.

The experimental group is the eleventh grade of social three MAN 1 Kebumen in the academic year of 2010/2011, and the control group is social four. This research the researcher gave pre-test and post-test to both groups to collect data.

The design of the experiment could be described as follow:

$$\frac{E\ 01\ X\ 02}{C\ 03\ Y\ 04}$$

Adopted from Arikunto.[3]

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[1]Michael J Wallace, *Action Research for Language Teacher*, (Cambridge: Cambridge University Press, 1998), p. 38.

[2]David Nunan, *Research Method in Language Learning*, (Cambridge: Cambridge University Press, 1992), p. 47.

[3] Suharsimi Arikunto,*Prosedur Penelitian Suatu Pendekatan Praktik*, (Jakarta: Pt Rineka Cipta: 2006)., p. 86.

Where:

E = experimental group

C = control group

01 = pre-test for experimental group

02 = post-test for experimental group

03 = pre-test for control group

04 = post-test for control group

X = treatment by using video clip

Y = treatment without video clip

From the design above, subjects of research were grouped into an experimental group (top line) and a control group (bottom line). The quality of subjects was first checked by pre-testing them (01 and 03). Then, the experimental treatment (taught by using video clip) was applied to the experimental group, while the control group was taught without video clip. The test was held in the form of composition. The results of post-test (02 and 04) were then computed statistically. Activities should be conducted in experimental and control class as follows:

2. The Activities of Experimental Group

a. Pre-test

Pre-test was given before the treatments. First, the writer came to the class. Then, teacher explained to the students what they had to do. Finally, she distributed the instruments and asked them to do the test.

b. Activities in Experimental Group

There were some activities in experimental group (Class XI social 3) as follows:

No	Activities	Time Allotment
1	a) Teacher gave the example of hortatory exposition text and explained it. b) Teacher asked students to retell arguments in the video clip in writing.	2x45’

	c) Teacher asked students to practice retell arguments based on video clip in front of class orally and individually.	
2	a) Teacher gave the example of hortatory exposition text and explained it. b) Teacher asked students to retell arguments in the video clip in writing. c) Teacher asked students to practice retell arguments based on video clip in front of class orally and individually.	2x45’
3	a) Teacher gave the example of hortatory exposition text and explained it. b) Teacher asked students to retell arguments in the video clip in writing. c) Teacher asked students to practice retell arguments based on video clip in front of class orally and individually.	2x45’

c. Post-test

Post-test was held after all treatments were conducted. This test was used to measure students’ achievement after they were given treatments. The result of test was analyzed statistically.

3. The Activities of Control Group

a. Pre-test

Pre-test was given before the treatment. First, the writer came to the class. Then, teacher explained to the students what they had to do. Finally, he distributed the instruments and asked them to do the test.

b. Activities for control group

There were some activities in control group (Class XI Social 4) as follows:

No	Activities	Time Allotment
1	a)Teacher explained about hortatory exposition text and gave an example of hortatory exposition text to the students. b) Teacher asked students to make hortatory exposition text.	2x45’
2	a) Teacher divided students into several groups. b) Teacher asked the groups to make hortatory exposition text (topic given by teacher). After that, teacher asked the group to present their hortatory exposition text by their own words.	2x45’
3	a) Teacher divided students into several groups. b) Teacher asked the group to make hortatory exposition text (topic given by teacher). After that, teacher asked the group to present their hortatory exposition text by their own words.	2x45’

c. Post-test

Post-test was held after all treatments were conducted. This test was used to measure students’ ability after they were given treatments. The result of test was analyzed statistically.

B. THE SUBJECT OF THE RESEARCH

This study was conducted in MAN 1 Kebumen located at Jalan Cincin Kota no. 44 Kebumen. The subjects of this study were the eleventh grade students of MAN 1 Kebumen in 2010/2011 academic year. This study was conducted in second semester.

1. Population

Jack R. Fraenkle and Norman E. Wallen, sates, "Population can be defined as a group to whom the researcher would like to generalize the result of the study."[4] The population of the research was the eleventh grade of MAN 1 Kebumen in the academic year of 2010/2011 which consisting of seven class. Each class consists of thirty eight and forty students. The total population was 336 students.

2. Sample

A sample is a group in research study on which information is obtained. Because the population of the study is very big, the researcher did not take all the subject of the population. The researcher took some subjects from the population. The research is an experimental research, so the researcher needs to take two classes that will be an experimental and control class as the sample from seven classes of the population. To determine the two classes, the researcher used purposive sampling technique. This technique was done by taking the subject/sample which is not based on strata, random or area but it is based on the consideration of a certain purpose.[5] The consideration that the researcher tried to complete in preliminary research was the sample that will be chosen has to be homogeny, so that the research will be a good and valid research. Because we know that something that can be compared is something that has the similar characteristic. The researcher took class XI social 3 and XI social 4, because based on the result of the summative test of the first semester, these two classes gained similar average achievements and

[4] Jack R. Fraenkle, Norman E. Wallen, *How to Design and Evaluate Research in Education*, (New York: The McGraw-Hill Companies, 2006) 6th Ed, p. 267

[5] Suharsimi Arikunto, *op.cit.*, p. 139

considered as homogeneous class. Each class consisted of 38 students. Students in class XI social 3 was using video clip and considered as experimental group. While students in class XI social 4 was taught without using video clip and considered as group.

C.RESEARCH VARIABLES

According to Fred D. Kerlinger as cited by Arikunto, state, "that all experiments have one fundamental idea behind them; to test the effect of one or more independent variables on a dependent variable (it is possible to have more than one dependent variable in experiments)".[6]

This research, that used video clip as method in teaching speaking hortatory exposition text, had two variables. Those variables were:

1. The independent variable

Independent variable is variable that influences or those to be cause of change the dependent variable.[7]

The independent variable of this research was the use of video clip in teaching speaking hortatory exposition text.

2. The dependent variable

Dependent variable is variable that was affected or that be the result because of the existence of the independent variable.[8] The dependent variable of this study was the students' achievement in the speaking test score in hortatory exposition text.

Based on the variables above, the researcher can make indicators that support the variables. The schema of indicators variables is stated as follows:

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[6] Suharsimi Arikunto, *op.cit.,* p. 119.
[7] *Ibid*., p. 119.
[8] *Ibid.*

Variable	Indicators
1. (Independent Variable) Using Video Clip	a. Preparing video clip and the tools, such as laptop, LCD, and sound. b. Playing video clip about a case.
2. (Dependent Variable) Students' achievement in the speaking test score in hortatory exposition text.	
Sub-Variable	**Indicators**
a. Sub-Variable; Students' ability in understanding hortatory exposition text	1) Identifying the generic structure in hortatory exposition text. 2) Identifying the social function of hortatory exposition text.
b. Sub-Variable; Students' ability in explaining hortatory exposition text	1) Explaining main idea of a paragraph. 2) Explaining contains of hortatory exposition text.
c. Sub-Variable; Students' ability in composing hortatory exposition text orally	1) Giving arguments in a case 2) Retelling arguments from a case with their own words.

D. TIME AND SETTING

This research was conducted on the second semester in the academic year of 2010/2011 for about 1 month began from January to February. It was conducted in MAN 1 Kebumen. It located in jalan cincin kota 44 Kebumen.

E. METHODS OF DATA COLLECTION AND ANALYSIS

1. Source of Data

The data of this research were gathered from the oral test of students' in pre-test and post-test through 'in speaking hortatory exposition text' and the documentation of students' previous summative test score.

2. Success Indicators

The indicators of speaking teaching learning are as follow:

a. The improvement of students' speaking skill of hortatory exposition text.
b. Students' speaking achievement with the minimum standard of score (KKM) speaking 7.0

3. Methods of collecting data

a. Test

In order to discover how students are thinking and using the target language (English). The researcher will do the test. According to Addision Wesley Longman, states, "test is a set of questions and exercises used to measure the achievement or capacity of the individual or group".[9] The researcher will conduct oral test in technique. The form of the test was direct test item of speaking because the writer put the students in individual and asked them to perform a based on the topic given. The topic was "presenting of a case, giving arguments and retelling arguments". The writer analyzed the result of the test and gave score. Harmer states that a test item is direct if it asks candidates to perform the communicative skill which is being test. The test will be conducted to both control class and experimental class which consist of 38 students of control class and 38 students of experiment class in form of speaking hortatory exposition text to evaluate students' speaking before and after the treatment. The scoring system will pay attention to the four aspects of

[9]H. Douglas Brown, *Teaching by Principle: An Interactive Approach to Language Pedagogy*, (New York : A Person Education Company, 2001), 2nd Ed, p.384.

speaking scoring; grammar and vocabulary, discourse management, pronunciation, and interactive communication.

Test is used to measure the person's competence and to achieve the objective. The data was collected by giving speaking test. Speaking was conducted twice, there are pre-test and post-test. The form of the test is direct speaking test and the teacher gave scores on pronunciation, grammar, vocabulary, fluency, and comprehension.

b. Documentation

Another data is needed to help the researcher run the research. In addition to do that, data will be collected through documentation of the students' previous examination score from the school. It will be used to validate the sample.

Documentation of students' speaking test recording is used to evaluate students' speaking skill.

4. Scoring Technique

In each test, the students played in speaking hortatory exposition text. The topic was "presenting of a case, giving arguments and retelling arguments". The researcher gave speaking test to the students to analyze their scores on pronunciation, grammar, vocabulary, fluency, and comprehension.

In giving scores to the students, the writer used analytic scale which categorized by some categories and the writer follows these scoring criteria for each category. This analytic score has five items and each item scores five. So, the maximum score is 20. But it will be multiplied with 5, so the final maximum score will be 100.

Analytic scoring of speaking could be seen on the following figures:

Aspects	Score	Description
Pronunciation	5	Have few traces of foreign accent.
	4	Always intelligible, though one is conscious of a definite accent
	3	Pronunciation problem necessitate concentrated listening and occasionally lead to misunderstanding.
	2	Very hard to understand because of pronunciation problems, must frequently be asked to repeat.
	1	Pronunciation problems so severe as to make speech virtually unintelligible.
Grammar	5	Makes few (if any) noticeable errors of grammar and word order.
	4	Occasionally makes grammatical and/or word order errors which do not, however obscure the meaning.
	3	Make frequent errors of grammar and word order which occasionally obscure meaning.
	2	Grammar and word order errors make comprehension difficult. Must often rephrase sentences and/or restrict him to basic patterns.
	1	Errors in grammar and word order as severe as to make speech virtually unintelligible.
Vocabulary	5	Use of vocabulary and idioms is virtually that of a native speaker.
	4	Sometimes uses inappropriate terms and/or

		must rephrase the idea because of lexical inadequate
	3	Frequently uses the wrong words; conversation somewhat limited because of inadequate vocabulary.
	2	Misuse of word and very limited vocabulary make comprehension quite difficult.
	1	Vocabulary limitations so extreme as to make conversation virtually impossible.
Fluency	5	Speed as fluent and effortless as that of a native speaker.
	4	Speed of the speech seems to be slightly affected by language problem.
	3	Speed and fluency are rather strongly affected by language problems.
	2	Usually hesitant; often forced into silent by language limitations.
	1	Speech is so halting and fragmentary as to make conversation virtually impossible.
Comprehension	5	Appears to understand everything without difficulty.
	4	Understand nearly everything at normal speed, although occasional repetition may be necessary.
	3	Understand most of what is said at slower than normal speed with repetition.
	2	Has great difficulty following what is said. Can comprehend only “social conversation” spoken slowly with

		frequently repetitions.
	1	Can not be said to understand even simple conversation virtually impossible.

Based on "*Testing English as a Second Language*"[10]

5. Methods of Data Analysis

There are two kinds of test that were held in experimental research**,** they are pre-requisite test and hypothesis test. So there must be process of analyzing the data collected from test.

a. Pre-requisite Test

Before determining the sample, the researcher should conduct a homogeneity test by choosing 2 classes with purposive sample. This test conducted to determine whether the data are homogenous or not. After conducting the test, data analysis was carried out to find out the data normality and the homogeneity of sample. It was meant to check if the research result met the requirement of good research or not. Data analysis discussed two main things:

1). Test of Data Normality

Before doing the research, the first step that had to be done was testing the data normality. It was aimed to know whether the data came from normal distribution or not. The researcher used Chi-Square formula, as follow:

$$X^2 = \sum_{i=1}^{k} \frac{(Oi - Ei)^2}{Ei}$$

Adopted from Sudjana.[11]

Where:

X^2 = Chi-quadrate

O_i = Frequency that was obtained from data

[10]David P. Haris, *Testing English as a Second Language*, (Washington DC: Georgetown University, 1969). p. 84.

[11] Sudjana, *Metoda Statistika*, (Bandung: Tarsito, 2002). p. 273.

E_i = Frequency that was hoped

k = the sum of interval class

If the obtained score was lower than t-table score by using 5% alpha of significance, Ho was accepted. It was meant that Ha was rejected.

2). Test of Homogeneity

Test of homogeneity was meant to get the assumption that sample of research came from a same condition or homogenous. The researcher used the formula as follow:

With this formula:

$$X^2 = (\text{Ln } 10) \{ B - S(n_i\text{-}1) \log S_i^2 \}$$

With:

$$B = (\text{Log } S^{2)}\ S\ (n_i - 1) \text{ and}$$

$$S^2 = \frac{\sum (n_i - 1) Si^2}{\sum (n_i - 1)}$$

Adopted from Sudjana[12]

Where:

X^2 = chi quadrate

S_i^2 = i-variance

n_i = number of participant

k = the sum of the interval class

If the Because of X^2 count < X^2 with significant 5% and dk= k-1 so the data is homogeneous. The writer uses the formula below to measure the hypothesis:

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

Adopted from Sugiono.[13]

[12] *Ibid*., 263

[13] Sugiyono, *Statistika Untuk Penelitian*, (Bandung: Alfabeta, 2007), p. 140

b. Hypothesis Test

Firstly, the test was done in both groups, experimental and control group. Secondly, the result of the test was scored by using analytic scale. Thirdly, the means score of the two groups were determined. Finally, the two means were compared by applying t-test formula. T-test was used to differentiate if the students' result of students' speaking skill in speaking hortatory exposition text by using and without using was significant or not.

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

Where:

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

Cited from Sudjana.[14]

Where:

$\bar{x}_1$ = the mean score of the experimental group

$\bar{x}_2$ = the mean score of control group

n_1 = the number of the experimental group

n_2 = the number of the control group

s = standard deviation

s^2 = variance

If the obtained score was higher than t-table score by using 5% alpha of significance, Ho was rejected.

It meant that Ha was accepted: "There was a significant difference in speaking achievement between the experimental and control group."

[14] Sudjana, *Op cit.*, p. 138