CHAPTER III

RESEACH METHODOLOGY

This chapter discusses research methodology applied in the research. It comprises research design, population and sample, research procedure, research instruments, time allocation, and technique for analyzing the data.

3.1 Research Design

This research was conducted as an experimental research with quasi-experimental design. It took two groups as the investigated groups, namely experimental group and control group. Both groups got different treatments. The experimental group received video use in teaching learning English as the treatment. On the other hand, the control group was taught without using video in teaching learning proces. In order to answer the first research question, pretest and posttest were used as the research instruments while the questionnaires were administered to answer the second research question. The research design of this study can be illustrated as follow:

Table 3.1

The Experimental Design

G1 T1 X T2

G2 T1 T2

G1 : experimental group

G2 : control group

T1 : pretest

T2 : posttest

X : the treatment through the use contextualization that belongs to experimental group

(Sugiyono, 2008: 116)

3.1.1 Data Collection

The data for this study were collected through some stages. It was started by organizing teaching procedures for both experimental and control group, organizing research instruments, and administering pretest. The pretest was administered to both classes in order to know their initial capability in speaking. It was administered as an oral test which was consistedof three instructions related to the topics that will be given in treatments.

After that, the treatment by using video was conducted in experimental group while the control group was taught without using video. The treatments were applied in six meetings based on the lesson plans which have been made before. Afterward,

the posttest was administered in order to see whether there is difference result of students' speaking ability between students who were taught through video and without video. In addition, the questionnaires were employed to answer the second research question. The result of questionnaires will reveal students' response toward the use of video in teaching learning speaking.

3.1.1.1 Population and Sample

The population of this research was the seventh grade students of a junior high school in Bandung. The samples were two classes where each class consists of 39 students. The first class was 7-9 as control group and the second class was 7-8 as experimental group.

3.1.1.2 Research Instruments

To answer the research questions, this research used three instruments namely pretest, posttest and questionnaire. Sugiono (2008) states instrument is a medium used to collect the data. These three instruments are described as follow:

Pretest was conducted to figure out the initial differences between the groups of students who have similar level of speaking competence. It has been given to both of the groups; control and experimental. **Posttest** was employed in the end of the research. It has been done after giving several treatments to the experimental group.

The result of the posttest is used to compare with the data of the pretest and analyze the use of video effectiveness in improving students' speaking ability.

Questionnaires were conducted to find out students' responses toward video use in teaching learning English speaking. The questionnaires consist of 12 items of closed ended questions. The closed ended questions used Guttman's scale (1950) to present a number of items the person is requested to agree or not agree. It was done in a 'yes/no' format. The questionnaires limit the respondent to the set of alternatives being offered.

Table 3.2

Categories of Questions

No.	Categories	Aspects	Question number
1.	Motivation and participation	Students' enthusiasm	1
2.		Students' curiousity	2
3.		Stimulate students' imagination	3
4.		Students' participation	12
5.		Students' confidence	11
6.	Video as an aid in learning speaking English	Video as a good model	4
7.		Video provides contextual learning	5
8.		Video can help students to understand the material	7
9.		Video can make students' easier to recall the material	6
10.		Video helps students to relate their prior knowledge to the material	8

11.	Speaking skill	Students pronunciation	9
12.		Students vocabularies	10

3.1.2 Research Procedure

As mentioned before, this research started on organizing teaching procedure. The treatment was conducted between pretest and posttest in experimental group by using educative videos from YouTube. The videos provide materials about asking-giving direction, describing people, and presenting recipes. Pretest, posttest and questionnaires were conducted to answer the research questions.

3.1.2.1 Organizing Teaching Procedure

This research was begun by conducting the pretest to measure students' speaking ability. Afterwards, video technique was given to the experimental group as the treatment; however the control group was taught without using video. Before starting to teach the class, teacher prepared lesson plan. The lesson plan comprised competence standard, basic competence, indicators, aims of learning, teaching-learning methods, materials, learning steps and media.

In experimental groups, the material was delivered by using video technique. The materials were taught in six meetings. They were classified into three topics based on the basic competence. The topics are asking and giving direction, describing

people and presenting a recipe. Asking and giving direction was taught in the first and second meetings, describing people in the third and fourth meetings, and presenting a recipe was taught in the fifth and sixth meetings. While in control group, the materials taught were the same as in experimental group but the materials were delivered through different method.

After the series of preparation and teaching-learning process had been conducted, the teacher then assessed the materials given. The step was essential to see whether or not the students were ready to employ the next step of this research namely posttest.

3.1.2.2 Conducting Treatment

The research was conducted to see the effect of two groups namely experimental and control group which each group was taught with different method. The experimental group was taught by using video technique as treatment, while the control group was taught without using video; audiolingual method.

In the experimental group, the teacher arranged the activities based on video technique. In conducting teaching learning in the class, the activities were divided into three stages, namely previewing stage, viewing stage and post viewing stage.

1. **In previewing stage,** the teacher told the students about the topic. In the first and second meetings the topics were aking and giving direction. In the third and fourth meetings the topics were describing people. In the fifth and sixth

meetings the topics were presenting recipies. After telling the topics, teacher asked the students to work in groups consisted four or five students. They were asked to see a picture from the video (freezing frame) and told to guess the characters, the place, and the utterances that might be occured in the scene. After that, the teacher and the students discussed the students' work and vocabularies that would be appeared in the video.

2. **In the viewing stage**, the students were instructed to complete the dialogue/monologue based on the dialogue/monologue which appeared in the video while they were watching the video. The teacher applied the same activies but different topics in every meeting. In the fifth and sixth meeting, the videos were played using silent viewing activities whereas the students had to guess what the ingridients, tools and steps in making a recipe. In the sixth meeting, there was an addition where the students had to rearrange the steps into correct order. The teacher played the video three times so the students could caught the messages clearly.
3. **In post viewing**, the students and the teacher discussed the correct answers for their prediction and completed dialogue/monologue. Next, the students were asked to do a role play based on the video that they have watched. Then, the teacher asked the students to make their own dialogue using the given vocabularies and practice it in front of the class. The teacher and the students closed the lesson by highlighting the expressions of the topics.

In control group, the teaching learning process was formulated in three phases activities.

1. **In pre-activity** the teacher introduced the topic and asked some questions related to the topic such as have you ever asked some one to show you the way to some places? How do you ask someone to show you the way? Etc.
2. **In the main activity**, the teacher give some dialogues related to the topic and explain the material. Then the students practiced the given dialogue in pair or practiced given monologue. The students were given a picture related to the topic and were asked to do the task such as make their own dialogue or monologue based on the picture. Next, the students praticed their own dialogue or monologue in front of the class.
3. **In the post activity**, the lesson was closed by highlighting the expressions related to the topic by the teacher and the students.

The following table presnts the time schedule of the research:

Table 3.4

Time Schedule of Research

No	Experimental Group		Control Group	
	Date	**Material**	**Date**	**Material**

1	2nd and 5th March	Pretest	1st and 5th March	Pretest
2	9th March	Asking and giving direction	8th March	Asking and giving direction
3	12th March	Asking and giving direction	12th March	Asking and giving direction
4	16th March	Describing people: physical appearance	15th March	Describing people: physical appearance
5	19th March	Describing people: personality	19th March	Describing people: personality
6	2nd April	Presenting recipe: pancake	22th March	Presenting recipe: pancake
7	16th April	Presenting recipe: milkshake	16th April	Presenting recipe: a cup of tea
8	19th April	Post test	20th April	Post test

3.1.2.3 Administering Pretest and Posttest

The research employed a speaking test as its instrument both in the experimental and control group. The test was divided in two parts, namely pretest and posttest. Pretest was administered in the first meeting. The purpose is to know the initial speaking skill of both groups of students and to ascertain that the students from both groups had the same capability and English proficiency before they received the treatment. On other hand, posttest was administered in the last meeting after the students received the treatment. It was intended to find out the differences between students' score of both groups.

3.1.3 Data Analysis

After collecting the data by using instruments, the researcher analyzed them. The process of data analysis was done on pretest and posttest scores to find out the students' development by using video technique after the treatments. There are scores and criteria which were settled to give brief explanation for every score given in assessing students' speaking ability. Criteria of assessment in conducting pretest and posttest was described as follow:

Table 3.5

Score Criteria for Pretest and Posttest

Pronunciation score criteria:

4	Occasional phonemic error but generally comprehensible
3	There exist several errors in pronunciation but it is generally accepted
2	Many phonemic errors, very difficult to perceive meaning
1	Incomprehensible and many words are mispronounced and incorrect

Vocabulary score criteria:

4	The words choice generally relevant with situation and have variation
3	The words have already been relevant with the topic and situation but do not have any variation yet

2	There are still lots of words used inappropriately
1	Poor and irrelevant words related to the topic and situation given

Fluency score criteria:

4	The speaker generally speaks naturally and continuously
3	There are some pauses but speaker manages to rephrase and continue
2	It run less continuously and often pauses
1	There are long pauses, utterances left unfinished or no response

(John L. D. Clark cited in Lubis, 1988)

3.1.3.1 Data Analysis on Pretest

3.1.3.3.1 Normal Distribution Test

According to Hatch and Farhdy (1982) the normal distribution has three distinct properties that allow us to make inferences about the population in general and our sample of that population in particular.

The statistical calculation of normality test used Kolmogorov-Smirnov by following three steps below:

- Setting the level of significance (*p*) at 0.05 and establishing the hypotheses as follows:

  Ho: the variances of experimental and control group are normally distributed.

- Analyzing the normality distribution with Kolmogorov-Smirnov test.

- Comparing the asymp.sig with the level of significance (*p*) to test the hypothesis. If the asymp.sig > 0.05, the null hypothesis is not rejected and alternative hypothesis is rejected, and the distribution of data is normal. Hence, if the asymp.sig < 0.05, the null hypothesis is rejected and alternative hypothesis is not rejected, and it means the data is not normally distributed.

3.1.3.3.2 The Homogeneity of Variance Test

The homogeneity of variance test used a SPSS program namely Levene test. The steps are as follows:

- Setting the level of significance (*p*) at 0.05 and establishing the null hypotheses as follows:

  Ho: the variances of the experimental and the control group are homogenous.
- Analyzing the homogeneity of variance by using Levene test.
- Comparing the asymp.sig with the level of significance to test the hypothesis. If the asymp.sig $>$ 0.05, the null hypothesis is not rejected and alternative hypothesis is rejected. It suggests that the variances of data are homogenous. However, if the asymp.sig $\leq$ 0.05, the null hypothesis is rejected and alternative hypothesis is not rejected. It clarifies that the variances are significantly different.

3.1.3.3.3 The Independent t-test

After revealing the result of normality and homogeneity test, the next statistical computation namely independent t-test was conducted. Those were the procedures to follow in calculating the independent t-test of pretest and posttest data:

- Setting the level of significance (*p*) at 0.05 and establishing the null hypothesis for the pretest and posttest data analysis. The null hypothesis is stated as bellow:

  Ho: there is no significant difference between the means in experimental and control group.

- Analyzing the independent t-test by using SPSS 17.0.
- Comparing the t *obt* and t *crit* at $p = 0.05$ and $df = 76$ to examine the hypothesis. If the t *obt* > t *crit*, the null hypothesis is rejected and alternative hypothesis is not rejected. It clarifies that there is difference of means between experimental and control group. However, if the t *obt* < t *crit*, the null hypothesis is not rejected and alternative hypothesis is rejected. It declares that there is no difference of means between experimental and control group.

3.13.3.4 Data Analysis on Posttest

Data analysis on posttest employed exactly the same steps as in the pretest data analysis which is included normality test, homogeneity test, and independent t-

test. In addition, the dependent t-test was also calculated to certify that there is a significant difference between the pretest and posttest score in each group.

3.1.3.3.5 The Calculation of Effect Size

According to Coollide (2001: 151) effect size is the effect of the influence of independent variable upon the dependent variable. It means that effect size is a way to consider how well the treatment works. If there is a large difference between the two groups' means, it states that the treatment really works, and then there is said to be a much effect size. If the difference between the two groups' means is small, then there is said to be a small effect size.

$$r = \sqrt{\frac{t^2}{t^2+df}}$$

Notes:

r = Effect size

t = t obt or t value from the calculation of independent t-test

df = N1 + N2 – 2

The computation of the effect size was done by using the SPSS 17 for Window Program. After gaining the effect size, then the score will be matched with the following scale to interpret the effect size.

Table 3.6

Effect Size Value

Effect Size	r value
Small	100
Medium	243
Large	371

(Coolidge, 2000: 151)

3.1.4 The Data Analysis of Questionnaire

The questionnaire was administered to the experimental group after receiving the treatment in several meetings. This study employed closed-ended questionnaire to investigate students' responses of using video in improving their speaking ability. The questionnaire consisted of 12 questions.

The formula of percentage was applied to analyze the questionnaire data. The numbers of respondent choosing 'yes' and 'no' were counted and changed into percentage form. The option 'yes' was counted 1 and the option 'no' was counted 0. The formula of percentage of questionnaire was as follows:

$$P = \frac{F \times 100}{N}$$

Note:

P = percentage

F = frequency

N = response

100 = constant

Table 3.7

Percentage of respondent

percentage	interpretation
0%	None of the students
1%-25%	A small number
26%-49%	Nearly half of
50%	Half of
51%-75%	More than half of
76%-99%	Most of
100%	All of

(Ningrat, 2000:33 cited in Mulyadin, 2010)