

CHAPTER III

RESEARCH METHODOLOGY

This chapter discussed the research methodology of this paper. This chapter consists of research design, data collection, research procedures, and data analysis.

3.1 Research Design

The research used a quasi-experimental design. The design was selected because it was commonly used in educational research. Besides that, quasi-experimental design also provides fruitful information for the advancement of research (Leedy & Ormrod, 2010 cited in Levy & Ellis, 2011).

This research was conducted based on quantitative method. The method was held in experimental research. The sample was divided into two classes; experimental class and control class. Both classes were tested by pre-test and post-test. Before giving the post-test, video story was given to the experimental class as the treatment. On the other hand, the control class was taught by using audio tape as a media in teaching speaking. Afterwards, the data which was taken from experimental class and control class would be compared and analyzed to find out its significance.

The experimental design in this research is described as follow:

Experimental	O ₁	X ₁	O ₃
Control	O ₂		O ₄

Notes:

O1 : Students' speaking scores of experimental group in pre-test

O2 : Students' speaking scores of control group in pre-test

O3 : Students' speaking scores of experimental group in post-test

O4 : Students' speaking scores of control group in post-test

X1 : Treatment using videos

The research used two classes which were divided into experimental group and control group. The treatment was only given in the experimental group. Before giving the treatment to the experimental group, both classes had administered pre-test. Last of all, post-test was given to find out students' speaking ability after given treatment. This process was used to find out whether there is a difference or not between the experimental group which the teacher used video as media in teaching speaking and the control group which the teacher did not use video as media in teaching speaking.

In this research, the independent variable was the use of videos in teaching speaking. This was the treatment or manipulated variable in order to assess their possible effects on one or more other variables. The dependent variable is students' speaking scores. This was the variable that depends on what independent variable does to it (Fraenkel & Wallen, 1993: 32).

The research started with the null hypothesis, the two groups were considered similar in the beginning of the experiment.

$$H_0: \mu_1 = \mu_2$$

Kranzler and Moursund (1999) proposed that the meaning of null hypothesis is there is no difference between experimental and control classes in the *mean* adjustment level. So that the null hypothesis in this research is there is no difference between the two groups, experimental and control classes, in students' speaking ability.

3.2 Data Collection

3.2.1 Population and Sample

The population in this research was one of senior high school in Bandung. The total population of first grade students in that school was 168 students which were divided into six classes.

The sample used two classes; each class consisted of 25 students. The first was class X-C that was taken as the experimental group and the second was class X-A that was taken as the control group. 25 students from X-C class gave video as a treatment and 25 students from X-A class gave audio tape as a treatment. So the fix number of the sample was 50 students.

3.2.2 Research Instrument

In the research, the instruments used to collect data were tests and administering questionnaire.

3.2.2.1 Test

Oral performance test was used to collect the data of students' speaking scores. The most important thing in speaking class is that students are able to communicate with other in oral form (Jespersen cited in Murcia, 1979: 83). In line with that, oral performance test was chosen as the best way to test speaking ability. In the tests, students have to retell story that was told by the teacher. To get students' speaking scores, a scoring paper was developed based on the scoring guides proposed by Georgiou & Pavlou (2003). The adopted scoring paper consisted of three important aspects which are fluency, pronunciation, and discourse management. The research existed in table 3.1.

Table 3.1
Speaking scoring Paper

Focus	Level	√	Score	Comments
Fluency	Frequent and long pauses cause difficulties in communicating.		15	
	Communicates even though there are some long pauses.		20	
	Communicates effectively without long pauses.		30	
Pronunciation	Pronunciation and/or inaccurate intonation makes comprehension difficult.		15	
	Acceptable, easily comprehensible pronunciation and intonation.		20	
	Very good pronunciation and intonation.		30	
Discourse Management	Structure not correct and there are not connection from each structure		20	
	Structure correct and there are not connection from each structure		30	
	Structure correct and there are connection from each structure		40	
Overall comments :				
Action Suggested :				
Teacher's signature				

Adapted from : Georgiou & Pavlou, 2003, *Assessing Young Learners*, China, Oxford University Press

3.2.2.2 Questionnaire

To find out the students' responses of using video in teaching speaking, the questionnaire was used. The questionnaire consisted of several questions related to the students' feeling about learning speaking, their responses of using video in learning speaking, and students' view about the use of video. The questionnaire was managed to the experimental group after the post-test. The questions were about students' responses to the use of video in teaching speaking.

3.3 Research Procedures

There were several procedures that were conducted in this research. The procedures were organizing the teaching procedures, conducting some treatments, administering pre-test and post-test, and conducting the questionnaire.

3.3.1 Organizing Teaching Procedure

In the research, the researcher functioned as a teacher in both experimental and control classes. Preparing the appropriate materials for teaching and learning process during the treatments for experimental group became the most important thing. Besides that, the researcher was organizing teaching procedures in experimental and control groups. The last, organizing the research instruments was needed for both of experimental and control groups.

In the experimental group, the teacher used video in teaching speaking as a media in teaching and learning activities, on the other hand, the control group used conventional speaking media in teaching and learning activities.

3.3.2 Conducting the treatment

In the research, experimental group was treated by using video story which consisted of monologue and dialogue in the video. The video provides related material based on curriculum and lesson plan. The videos were taken from youtube.com and the researcher focused on taking video that contain the stories of monkey and crocodile and the three little pigs. Nevertheless, control group was not treated by using video as media in teaching speaking, this group was taught by using conventional method, in this case using narrative text and using tape as media in teaching speaking.

The teacher used Freeze frame technique in using video as media to teach the experimental class' students. Refers to Harmer (2002:286-287), this technique makes the teachers can freeze the picture in the video any time, so they can ask students what they think will happen next or what the characters will say next.

The experiment was conducted in one of senior high school in Bandung. It consisted of two classes which were used for experiment and control group. Both of the classes were in the first grade in the school and those were chosen by the teacher in that school. The experiment was started from February 10, 2012 and ended in March 1, 2012. The lesson plan can be accessed in appendix 2 and the detail information of the schedule in the experiment of the use video in teaching speaking is showed in the table 3.2 below.

Table 3.2
Schedule of the Experiment

No	Experiment Group		Control Group	
	Date	Material/Theme	Date	Material/Theme
1	February 10, 2012	Pre-test	February 10, 2012	Pre-test
2	February 14, 2012	Video (Monkey & Crocodile) Pairing test	February 13, 2012	Reading story by teacher (Monkey & Crocodile) Pairing test
3	February 15, 2012	Video (Monkey & Crocodile) Fill on the blank (Answer the questions)	February 15, 2012	Listening the cassette (Monkey & Crocodile) Fill on the blank (Answer the questions)
4	February 17, 2012	Video (Monkey & Crocodile) Guessing Pictures.	February 17, 2012	Writing text (Monkey & Crocodile) Guessing Pictures.
5	February 21, 2012	Video (The three little pigs). Pairing test.	February 20, 2012	Reading story by teacher (The three little pigs). Pairing test.
6	February 22, 2012	Video (The three little pigs) Fill on the blank (Answer the questions)	February 23, 2012	Listening the cassette (The three little pigs) Fill on the blank (Answer the questions)
7	February 24, 2012	Video (The three little pigs). Guessing Pictures	February 24, 2012	Writing text (The three little pigs). Guessing Pictures
8	February 29, 2012	Post-test	March 1, 2012	Post-test

In the first condition, there were no differences between experimental and control groups. After that, the differences from the two groups only in the use of media.

3.3.3 Administering pre-test and post-test

The pre-test and post-test were conducted in the form of oral performance test. The data gained from pre-test show the basic capability of students' speaking ability before given the treatment. On the other hand, the data gained from post-test show the effect of using videos to the students' speaking ability in experimental group. The assessment focused on three aspects, such as fluency, pronunciation, and discourse management. In the end, those data would be compared to find out the significance of using videos in improving students' speaking ability.

The table 3.3 bellow is the instruction of pre-test and post-test in the research.

Table 3.3

Instruction of pre-test and post-test

PRE-TEST

Teacher's Instruction:

Listen to my stories, and then you have to retell the story in front of the class!

(After that the teacher tell the stories about "Monkey and Crocodile" and "The Three Little Pigs")

POST- TEST

Teacher's Instruction:

Listen to my stories, and then you have to retell the story in front of the class!

(After that the teacher tell the stories about "Monkey and Crocodile" and "The Three Little Pigs")

3.3.4 Conducting Questionnaire

The last, the research conducted the questionnaires. The questionnaires and interview were conducted to find out experimental group's responses toward

the use of video based on their point of view. The questionnaires and Interview were administered in the end of the treatment series.

The table 3.4 shows the points of questions that were given in the questionnaire.

Table 3.4
Questionnaire's Points

No	Points	Question numbers
1	Students' difficulties in Speaking.	1, 2, 3, 4, 5, 6, 7, 10.
2	Students' problems in learning speaking.	8,9.
3	Students' language skills Improvement.	12, 14, 15, 19, 20, 21.
4	Students' encouragement.	11, 13, 16, 17, 18, 23.
5	The advantages of video.	22, 24, 25.

3.4 Data Analysis

The analysis of data is conducted after assembling the required data such as pre-test, post-test, questionnaires and interview.

3.4.1 Pre-test and Post-test Data Analysis

The Pre-test and Post-test were statistically analyzed by using t-test. Before the test, tests of normality of distribution and variance homogeneity were conducted. If the scores were normally distributed, t-test could be conducted.

3.4.1.1 Normality of Distribution

Analysis of normality of distribution was conducted to find out the scores of experimental and control group whether the scores were normally distributed or not. To analyze the normality of distribution, Kolmogorov-Smirnov formula was

used in SPSS for windows. If the *Asymp. sig.* is higher than the level of significance (0.05), the scores was normally distributed.

3.4.1.2 Homogeneity of Variance

The analysis of homogeneity of variance was conducted to find out the variance of the experimental and control group whether the scores were homogenous or not. To analyze homogeneity of variance, Levene Test formula was be used in SPSS for widows. If the probability is higher than level of significance (0.05), variance of the experimental and control group was homogenous.

3.4.1.3 The Independent T-test

The analysis of independent t-test was conducted to find out the means of experimental and control group whether there is significant difference or not. Independent sample test formula was be used in SPSS for windows. If the *Asymp. sig.* is higher than the level of significance (0.05), means of the experiment and control groups were significantly different.

3.4.1.4 Analyzing Data on Questionnaire

The data gained from questionnaire was analyzed and described by using qualitative approach. The data were experimental students' responses to the use of video in learning speaking. The formula of percentage was used to analyze the questionnaire. The data were interpreted based on the frequency of the students' answer.

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

Notes:

P : Percentage of response

F : Frequency of answer

N : number of students

The data were interpreted based on the frequency of students' answer.

