CHAPTER III
RESEARCH METHODOLOGY

3.1 Introduction

This chapter elaborates the research methodology employed in the research. The elaboration covers research problems to be answered, research design, and procedures for data collection and data analysis.

3.2 Research Problems

This research covers three research problems to be investigated, those are; (1) the implementation of oral presentation class using video as instructional media; (2) students' responses to the use of video as instructional media in oral presentation class; and (3) the effectiveness of using video as instructional media in oral presentation class based on pretest and post-test score.

This research also covers the hypotheses which need to be explored, those are:

1. Null hypothesis one (H01): There is no significant improvement on the use of video as instructional media to students' oral presentation skills.

2. Alternate hypothesis one (H1): There is significant improvement on the use of video as instructional media to students' oral presentation skills.

3.3 Research Design

This research employs a mixed method study with a descriptive study. Observation, questionnaire, and students' pretest and post-test score are used in this research. The observation is conducted to find out the implementation of video as instructional media in English oral presentation class. The questionnaire is utilized to answer the response of students to the implementation and the efficiency of its implementation for students' presentation skills. While the analysis of pretest and post test score is used to know the effectiveness of using video as instructional media in oral presentation class. This method is applied to uncover and comprehend what lies behind any phenomenon about what is yet known (Strauss & Corbin, 1990). They also stated that the method can obtain a systemic, accurate and factual data.

3.3.1 Research Site

This research was conducted at English 3 class, Informatics Management Diploma Program, School of Applied Science, Telkom University. This university is a private university located in Jalan Telekomunikasi Terusan Buah Batu Kabupaten Bandung. Telkom University was established in 2013 when four educational institutions under Telkom Foundation were merged to form a university. Those institutions are; Telkom Institute of Technology, Telkom Institute of Management, Telkom Polytechnic, and Telkom Institute of Art and Design. Telkom University has a target to be a world-class university. Therefore, they put English language skills as the priority to prepare their students for global future. This class is chosen for two reasons. First, this class is doing the English Presentation course, the course is using video as the tool of teaching. Second, the learners are diverse in term of the low achiever, middle achiever, and the high achiever.

3.3.2 Research Subjects

The 3rd-semester students from School of Applied Sciences Telkom University Bandung Indonesia are selected to be the subject of this research. The subjects are chosen for some reasons. First, the English presentation course is intended for students in this class. Second, these learners have been exposed to the use of video in a presentation so that they won't face any hardship in the process. Third, since factors related to their self-image, self-esteem, and ego (Brown, 2001), promoting independent learning will contribute to the development of these factors. The Table 4.1describes the profile of the respondents.

Table 3.1 Respondent profile (n = 72)

	Respondent	**Number of Respondent**	**Percentage (%)**
Gender	Male	25	69,44%
	Female	11	30,56%
Education Background	High School	35	97,22%
	Diploma 1	1	2,78%

From the table, it is known that the number of the male respondent from this class is 25 students (69,44%),while the number of female respondents is 11 students (30,56%). Besides, based on their educational background, the number of respondents who were graduated from high school is 35 students (97,22%) while the other was graduated from Diploma 1 (2,78%). The only respondent who was graduated from Diploma 1 is continuing his study to Diploma

3 in informatics management. So, the respondents are mostly male and mostly graduated from high school.

A purposeful sampling is used in this research. Alwasilah (2002) stated that a purposeful sampling is a method in which choosing the subjects who represent the low-achiever, middle-achiever, and high achiever learners. According to Ellsberg and Heise (2005) purposeful sampling is a method in which participants are selected because they are likely to generate useful data for the project. The specific purposeful sampling used in this research is stratified purposeful sampling which has a purpose "to illustrate characteristics of particular subgroups of interest; to facilitate comparisons" (Ellsberg & Heise,2005,p. 106). A total of 36 students of English 3 class majoring in Informatics Management Telkom University were being observed by the researcher. The reason for choosing this class as a sample is because this class according to the English 3 lecturer is considered having intermediate skill in speaking so as they will be easy to be given any particular method such as the use of video as instructional media.

The process of teaching and learning oral presentation was becoming the object of observation. The processes were recorded to gain a maximum data. Then, the data is analyzed using the method proposed by Miles and Huberman (1984). The observation data covers the steps in teaching oral presentation, topics in teaching oral presentation, and the use of video as instructional media in teaching oral presentation.

3.3.3 Research Instruments

There are three research instruments used in this research, those are observation, questionnaire and pretest and post-test score. Section 3.3.3.1 to 3.3.3.3 explain how the instruments are developed, to whom the instruments are distributed or applied, and for what purpose the instruments are developed.

3.3.3.1 Observation

Observation is considered as a systematic description of events, behaviors, and artifacts in the social setting chosen for study (Marshall & Rossman, 1989). Besides, Erlandson, Harris, Skipper and Allen (1993) stated that observations enable the researcher to describe existing situations using the five senses, providing a "written photograph" of the situation under study. Furthermore, observation is useful to researchers in a variety of ways. They provide

researchers with ways to check for nonverbal expression of feelings, determine who interacts with whom, grasp how participants communicate with each other and check for how much time is spent on various activities (Schmuck, 1997).

The observation is conducted as a non-participant to know the process of using video recording in English presentation class as well as students' behavior during the teaching and learning process; in this case is students response during previewing, viewing, and post viewing process. The whole process is recorded. Teacher's and students' behavior were analyzed based on researcher's analysis to the recorded video. The result of the recording is transcribed, coded and categorized (Alwasilah, 2002). Lecturer's way of teaching and using video for the media in teaching, students' participation, students' presentation performance, and lecturer's feedback are the main points to be recorded and analyzed to support the result of the research.

3.3.3.2 Questionnaire

To answer the second research question about students' responses to the use of video as instructional media in oral presentation class, the questionnaire was distributed. The content of the questionnaire covers three main topic; first, students' responses to the implementation of oral presentation class; second, students' responses to the technique of using video as instructional media in oral presentation class; and finally, students' responses to the effectiveness of using video in oral presentation class to their presentation skills.

The questionnaire was distributed at the end of the twelfth meeting discussion on the topic of 'Questions and Interruption' and analyzed statistically. The language when the questionnaire was distributed was using Bahasa Indonesia and further was translated into English in the analysis process. Besides, theories related to the result of the questionnaire were also attached as to strengthen the result. The reason for choosing this class as a sample is because this class according to the English 3 lecturer is considered having intermediate skill in speaking so as they will be easy to be given any particular method such as the use of video as instructional media. The questionnaire was distributed to 36 students in Informatics Management, School of Applied Science, Telkom University.

In distributing the questionnaire, the researcher firstly used Bahasa Indonesia written in the questionnaire. This is with an aim to prevent misunderstanding among students since they are not majoring in English. Then, the questionnaire was scored by applying *Likert*

Scale with a modification presented below:

Table 3.2. Likert Scale

Answer	**Value**
Strongly Agree *(Sangat Setuju)*	5
Agree *(Setuju)*	4
Perhaps Disagree *(Kurang Setuju)*	3
Disagree *(Tidak Setuju)*	2
Strongly Disagree *(Sangat tidak setuju)*	1

A tryout is conducted to determine the validity and reliability of the first questionnaire. It is conducted by 20 students. In measuring the validity, the researcher used *Pearson Product Moment formula* in SPSS. That is why, to interpret whether a question is valid or not, a guideline from Arikunto (1996) is employed with some modification as presented Table 3.3.

Table 3.3. Validity category (Arikunto, 1996)

Coefficient Interval Score	**Validity Category**
0.00 - 0.199	Poor
0.20 - 0.399	Satisfying
0.40 - 0.599	Good
0.60 - 0.799	Very Good
0.80 - 1.00	Excellent

Meanwhile, to measure the reliability of the first questionnaire, *Cronbach's Alpha* formula in SPSS format (Hatch & Lazaraton, 1991) is used. Thus, if the alpha coefficient is ≥0.70, then the question is reliable, the detailed results of the validity and reliability of examination are presented in the Appendix. Later, the first questionnaire is distributed to 36 students.

The questionnaire was developed to gain the students' response on the implementation of video used as instructional media in oral presentation class. The questionnaire covers

students' response to the integrated activities; previewing, viewing, and post-viewing.

3.3.3.3 Pretest and Post Test Score

As an aim to find the answer to the third research question, students' pretest and post test score were used as the data. Nonequivalent Control Group Design was used in this research. The measurement was conducted before and after the treatment to see the difference between before and after the treatment itself. The design can be seen in the following (Note: E= Experimental Group, C= Control Group, $O_1$and O_3= pretest, $O_2$and O_4= post test, and X= treatment).

E	O_1	**X**	O_2
C	O_3		O_4

The score was analyzed statistically to gain the effect of using video as instructional media in oral presentation class. N-Gain concept was used to analyze the score. This was done to strengthen the result whether the use of video as instructional media in oral presentation class gives significant effect or not to students' oral presentation skills.

3.3.3.4. Interview

The instrument of interview is used as a secondary data which means that the result of the interview will be used if necessary to strengthen the result of the questionnaire regarding students' response to the implementation. The interview questions covers students response to the implementation of video as an instructional media in oral presentation class. The interview is designed for some students from the class with video and some students from the class without video. This is done in order to get different perspective from different situation and experience.

3.3.4 Research Stages

For the purpose of collecting data, procedures are set along with the time schedule, as presented in the Table 3.4.

Table 3.4: Research Stages

Stage	Procedures
1	**Pre-Research Stage:**
	a. Researcher and lecturer are meet up discussing the research and it needs
	b. First Meeting and asking students on their willingness to be the respondent
	c. Trying out the questionnaire to 20 learners to obtain the validity and reliability
2	**On- Research Stage**
	a. Starting the observation process on the first meeting: How to Open a Presentation
	b. Second Meeting: Visual
	c. Third Meeting:The Main Part of a Presentation
	d. Fourth Meeting: Question and Interruption
	e. Fifth Meeting: The Way to Close a Presentation
	f. Sixth Meeting: Distributing the Questionnaire
3	**Post Research Stage**
	a. Analyzing the Result of the Research
	b. Peer Review the Result with the lecturer to gain the validity and reliability of analysis

3.4 Data Analysis

This part tries to elaborate the technique of analyzing the data. There are two techniques used in analyzing the data i.e. analyzed qualitatively and analyzed quantitatively. The data gained from questionnaire and score were analyzed using a statistical technique (quantitative) and data from observation was analyzed using a descriptive technique (qualitative).

3.4.1 Analyzing the Observation

In this research, the observation is conducted to know the whole process of teaching and learning. That is why the whole process is recorded. The recorded data then transcribed, coded and categorized (Alwasilah, 2002) based on some important points: the oral presentation teaching and learning process using the video representations as the media in teaching, students' participation, students' presentation performance, and lecturer's feedback are the main points to be recorded and analyzed to support the result of the research. The interpretation of the analyzed data is described using the descriptive technique.

The data gained from observation was analyzed qualitatively. The steps in analyzing the observation data qualitatively in this research are proposed by Miles and Huberman (1984) which consists of data collection, data display, data reduction, and conclusion: drawing/ verifying. The observation was conducted and recorded. Then the data gained from observation was transcribed, categorized, grouped, interpreted, and concluded.

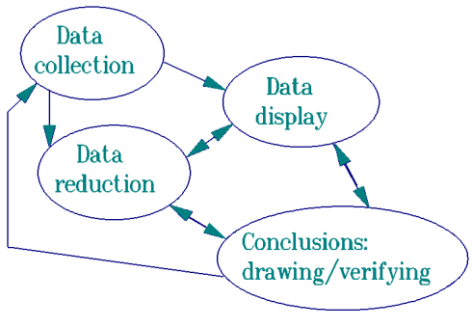

Figure 3.1 M&H's components of data analysis (1984)

According to Miles and Huberman (1984) that in analyzing observation, those steps can be done; data collection, data reduction, data display and conclusions: Drawing verifying. Furthermore, after collecting the data, data reduction is done to select the appropriate data for research. After reducing the data, data display is the next to do to categorize which data suits the needs. Finally, create the conclusion is the last step to draw or verify the research data.

3.4.2 Analyzing the Questionnaire

After the questionnaire are distributed to 36 learners, the questionnaire is collected and the choice answers are discovered ranging from strongly agree, agree, perhaps agree, disagree, to strongly disagree *(Likert Scale*). The content of the questionnaire covers three main topic;

first, students' responses to the implementation of oral presentation class; second, students' responses to the technique of using video as instructional media in oral presentation class; and finally, students' responses to the effectiveness of using video in oral presentation class to their presentation skills.

The data from the questionnaires are measured by using the statistical technique. The first step is measuring the data using *Pearson Product Moment* formula, then to interpret the coefficient value, Arikunto (1996) value is used. Besides, *Cronbach's Alpha* formula is used to know the reliability. To interpret the data, the descriptive procedures are also employed as an attempt to answer the second and third research questions.

3.4.3 Analyzing Score

The Nonequivalent Control Group Design was used in this research. The measurement was conducted before and after the treatment to see the difference between before and after the treatment itself. These are the steps in conducting the Gain concept. Firstly, the data were analyzed using Kolmogorov-Smirnov normality test to know whether the data were distributed normally or not. Second, the data then analyzed using paired t-test. The paired t-test is applied to compare both pretest and post test score. Next, the data was also analyzed using an independent t-test to compare the post-test score of control and experimental group. This step aims to know the improvement difference between the class with video and class without video.

3.4.4 Analyzing Interview

The data that was gathered from interview was analyzed qualitatively. The data was analyzed through five steps as proposed by McCracken (1988) those are transcribing, categorizing, coding, examining, and interpreting qualitatively.