

CHAPTER III

RESEARCH METHOD

This study has the purpose to discover how effective video meeting are as online learning media to increase students' speaking skill. Therefore, in this chapter, the researcher presents the method used that covers research design, population and sample, research instrument, data collection, and data analysis.

3.1 Research Design

The fundamental procedure that is used to logically and consistently integrate the different study components is known as the research design that includes the plan for gathering, calculating, and analyzing information (Mishra & Alok, 2017). Thus, the research design is the best way to collect any data from the research process. Furthermore, this study used a quantitative approach that a pre-experimental research design included with one group pre-test post-test. According to Mishra & Alok (2017), based on the concept of quantity, quantitative research uses methods such as statistics, percentages, and other numerical methods to analyze observable phenomena through systematic experimental methods.

In the pre-experimental one group pre-test post-test, subjects are required to take a test before and after learning processes through video meeting as treatment. The pre-test is given before the treatment to know their speaking skill ability, and the post-test is given after the treatment to find out whether using video meeting is effective to increase students' speaking skill as an online learning media by statistical measurement. The results of the treatment given can be ascertained more precisely in the pre-experimental one group pre-test post-test since they can be

compared to the pre-treatment state (Asma, 2017). A table of pre-experimental one-group pre-test post-test is presented below:

PRE-TEST	TREATMENT	POST-TEST
Y1	X	Y2

Table 3.1 Pre-experimental One Group Pre-test Post-test Design

Y1 : Subjects before treatment

Y2 : Subjects after treatment

X : Teaching using video meeting as the online learning media

3.2 Population & Sample

According to Ary et al. (2010), all members of any well-defined class of people, events, or things are considered members of a population. In this study, the accessible population is known that there are 758 total students of SMP N 3 Bojonegoro from 7th grade until 9th grade in the academic year 2022/ 2023. Furthermore, the target population of this study is 8th grades students of SMP N 3 Bojonegoro, in which a total of class are 8 classes with 254 students. Besides, the researcher takes 8th graders as the subject population in this study because they are in a good grade between 7th and 9th grade students. 7th graders who are adapting from elementary school to junior high school and 9th graders who are preparing for graduation exams. Below the researcher presents the details of the target population:

Class	(X) Total of Students
VIII A	32
VIII B	32
VIII C	32
VIII D	32
VIII E	32
VIII F	32
VIII G	31
VIII H	31
ΣX	254

Table 3.2 Population of the Study

Furthermore, Ary et al. (2010) stated that sampling is a sample-taking technique that allows any element or population member to be selected as a sample. The researcher employed a non-probability sampling or purposive sampling in this study. With this sampling technique, specific objects from the larger population are purposefully chosen to represent a sample (Mishra & Alok, 2017). The researcher took the sample with the guidance of the English subjects teacher who would direct which class that could be used as the subject. By using the technique, the researcher gets 32 students from the 8-B class. The class selected because many students experienced difficulties and decreased learning outcomes, especially in speaking skill.

3.3 Data Collection

3.3.1 Technique and Instrument

The technique used to obtain data in this study is a test: pre-test and post-test. Furthermore, a test is a collection of stimuli provided to an individual in order to elicit reactions that could be used to calculate a numerical score (Ary et al., 2010). In addition, Arikunto (2009) states that any equipment used to collect data is referred to a research instrument. For this reason, the researcher employed a speaking test: a dialogue test based on the material chosen as the research instrument in this study.

3.3.2 Procedures of Data Collection

The key to determining the research's outcome is data collection, which includes implementation steps from start to finish. Therefore, the steps involved in gathering the data are as follows:

3.3.2.1 Preparation

First, the researcher conducted a literature review and previous research. Second, the researcher arranges the research instrument, lesson plan, and teaching materials that will be used in research. Third, researchers take care of licensing studies.

3.3.2.2 Implementation

a. Pre-test, the test, which will determine the subject's speaking ability, will take place in about 45 minutes. The goal of the test will be explained to the subjects, after which they will be informed about the learning materials and speaking exercises.

b. Treatment, the use of video meeting to deliver learning material and conduct learning activities while in online learning in this study is determined as treatment toward students. During three meetings of an experimental process, 32 subjects from the 8-B class are taught with material chosen using video meeting. The researcher uses the features provided by the video meeting to communicate and engage in online learning. In order to keep students from getting bored, the following features are used: a chat box for students to answer questions and create example sentences from the delivered material; a share screen to display learning materials that have been packaged attractively; and a reactions button to respond to what they have learned. Furthermore, the meeting is divided into two sessions, and each meeting consists of 16 students.

c. Post-test, the final step after treatment conducted, the subjects are given a post-test to gain their outcomes that will be compared with the outcomes from the pre-test.

3.3.2.3 Solution

First is the calculation of the test scores that have been obtained using descriptive statistical analysis and inferential testing. Second, consultation results and discussion of research on the supervisor. Third, preparation of research conclusions.

3.4 Data Analysis

The purpose of this study is to find out the effectiveness of video meeting as an online learning media to increase students speaking ability. The data were collected by students' assessment scores in pre-test post-test, and statistical measurement using the statistical analysis program *Software Statistical Package for The Social Sciences (SPSS) 16 For Windows Data*. Furthermore, the researcher analyzed the data using descriptive analysis and inferential analysis. The inferential analysis includes a normality test using the Kolmogorov-Smirnov test, and to test the hypothesis paired-sample t-test is used.

3.4.1 Descriptive analysis

A data analysis technique known as descriptive statistical analysis describes the data that has been gathered without drawing generalizations. This is supported by Creswell (2012), who said descriptive statistics give an idea of how scores could vary, summarize the major trends or tendencies in the data, and show how one score compares to others. In addition, a scoring technique used to collect the students' scores on pre-test and post-test in this study. The following is the example of a rubric for assessing the students' speaking that focuses on the ability in pronunciation, vocabulary, and fluency through dialogue. These classifications are used to describe students' learning outcomes through learning activities while given the treatment using video meeting as an online learning media. Analytic scoring of speaking can be seen on the figures below:

a. Pronunciation

ASPECTS	SCORE	DESCRIPTION
Pronunciation	91-100	Have few traces of foreign accent.
	75-90	Always intelligible, though one is conscious of a definite accent
	61-74	Pronunciation problem necessitate concentrated listening and occasionally lead to misunderstanding
	51-60	Very hard to understand because of pronunciation problems, must frequently be asked to repeat.
	10-50	Pronunciation problems so severe as to make speech virtually unintelligible.

Table 3.3 Scoring of Pronunciation (Harris in Susanti, 2018, as cited in Nuranalisa, 2019)

b. Vocabulary

ASPECTS	SCORE	DESCRIPTION
Vocabulary	91-100	Use of vocabulary and idioms is virtually that of a native speaker.
	75-90	Sometimes uses inappropriate terms and must rephrase the idea because of lexical inadequate.

ASPECTS	SCORE	DESCRIPTION
Vocabulary	61-74	Frequently uses the wrong words, conversation somewhat limited because of inadequate vocabulary
	51-60	Miss use of word and very limited vocabulary make comprehension quite difficult.
	10-50	Vocabulary limitations so extreme as to make conversation virtually impossible.

Table 3.4 Scoring of Vocabulary (Harris in Susanti, 2018, as cited in Nuranalisa, 2019)

c. Fluency

CLASSIFICATION	SCORE	CRITERIA
Very Good	91-100	Speaking Fluently
Good	75-90	Speaking Generally at normal speed
Fair	61-74	Speaking sometimes hasty fair
Less	51-60	Speaking too slowly
Poor	10-50	Speaking with many pauses.

Table 3.5 Scoring of Fluency (Heaton in Alwidin, 2014, as cited in Nuranalisa, 2019)

Furthermore, the researcher used a speaking test for the students to measure their scores in pronunciation, vocabulary, and fluency. Besides, the

researcher used an analytic scale that categorized by some category in giving scores to the students. 100 is the maximum score for each aspect.

NO.	CLASSIFICATION	SCORE
1.	Excellent	91-100
2.	Good	75-90
3.	Fair	61-74
4.	Less	51-60
5.	Poor	0-50

Table 3.6 Scoring Table (Depdikbud, 2009)

Furthermore, in order to determine the students' final test score as follows:

Final score =	Total scores
	3

Table 3.7 Final Score Computation Table

After knowing the final score from the pre-test and post-test, the researcher calculates the mean, median, and mode from the pre-test and post-test. The mean is the average of a data set, the median is the middle value, and the mode is the most occurs number in a data set. Besides, the researcher gives the outcomes of students' pre-test and post-test scores that have been examined using *SPSS 16*. What is presented is that there are students' score classification on the pre-test, students' score classification on the post-test, and descriptive analysis results of pre-test and post-test scores.

3.4.2 Inferential Test

Inferential analysis, according to Creswell (2012), examines scores from a sample and uses the results to draw conclusions or predict things about the population. In line with Creswell, an inferential analysis test is used to compare a group or correlate two or more variables in a sample population. Therefore, the inferential test that is used by the researcher for hypothetical testing is statistical measurement by *SPSS 16*. It includes the normality test and the hypothesis test. Besides, the paired-sample t-test is used to analyzed the hypothesis.

3.4.2.1 Normality Test

The normality test used in this analysis is the Kolmogorov-Smirnov test. It was carried out to ascertain whether the sample data came from a typical population. Furthermore, the following are the guidelines for data interpretation: data said to be normal if sig. p. value $>$ degree of significance (α). And then, the data said to be abnormal if the sig. p. value $<$ α .

3.4.2.1 Hypothesis Test

Hypothesis testing in a study needs to be tested to prove the truth of the hypothesis that have been formulated before. In that case, the following standards are applied while testing hypothesis: H_a accepted if t-test $>$ t-table, and H_o accepted if t-test $<$ t-table. Furthermore, it is possible to accomplish by comparing the sig. p. value with the degree of significance

($\alpha = 0.05$). If sig. p. value > 0.05 H_0 accepted, and sig. p. value < 0.05 H_a accepted.

Comparison	Hypothesis	
	H_0	H_a
t-test $<$ t-table	Accepted	Rejected
t-test $>$ t-table	Rejected	Accepted

Table 3.8 Hypothesis Testing

t-test $>$ t-table / sig. p. value < 0.05 : The alternative hypothesis (H_a) is accepted, and the null hypothesis (H_0) is rejected. It means there is a significant difference in students speaking ability taught using video meeting. That means teaching using video meeting as an online learning media is effective to increase students' speaking skill.

t-test $<$ t-table / sig. p. value > 0.05 : The alternative hypothesis (H_a) is rejected, and the null hypothesis (H_0) is accepted. It means there is no significant difference in students speaking ability taught using video meeting. That means teaching using video meeting as an online learning media is not effective to increase students' speaking skill.