

## CHAPTER III

### METHOD OF THE RESEARCH

#### A. Method of the Research

The research method is something that must be prepared before going directly to the field. Sugiyono said that the research method is a scientific way to obtain valid data to find, develop, and prove certain knowledge so that they can understand, solve, and anticipate problems in the field of education.<sup>1</sup> In conducting the research, quantitative research method applied as the research methodology. The quantitative research is any research that uses procedures that gather data in numerical form. More broadly, the term often implies an approach to research that aims at causal explanation of phenomena through the identification of variable which can be made the basis of experimental investigation.<sup>2</sup> Pre-experiment, true-experiment, and quasi experiment are three types of quantitative research designs, according to Nunan.

1. Pre-experiment; includes pre- and post-treatment tests, but no control group.

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<sup>1</sup>Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: ALFABETA, 2013),2.

<sup>2</sup>Jack C. Richards and Richards Schmidt, "Longman Dictionary of Language Teaching and Applied Linguistics", (Britain: Pearson, 2010), 476

2. A true experiment with both a pre- and post-test, an experimental and control group, and subject assignment at random.

3. Quasi-experiment; has both a pre- and post-test, as well as an experimental and control group, but no random assignment of people.<sup>3</sup>

According to Sugiyono the experimental research method is a study approach that is used to determine the effects of particular treatments on others in a controlled environment.<sup>4</sup> The researcher conducted this research by using a pre-experimental design. Pre-experimental design is a design that includes only one group or class that is given pre and post-test. Design this one-group pretest and post-test design was carried out on one group without a control or comparison group.<sup>5</sup> The subject of this research consisted of only one group or a class. This research applied pre-test before treatment and post-test after it.

Table 3.1 Pre-experimental (one group pre-test posttest) design<sup>6</sup>

Pre-test	Treatment	Post-test
$O_1$	X	$O_2$

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<sup>3</sup> David Nunan, *Research Method in Language Learning*, ( Cambridge: Cambridge University Press, 1992), 41.

<sup>4</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: ALFABETA, 2013), 72.

<sup>5</sup> Sugiyono, *Metode Penelitian* , 73.

## **B. The Site and Time of Study**

This research was conducted on the eighth semester of English Education Department in State Islamic University Sultan Maulana Hasanuddin Banten, academic year 2020/2021, located in Jl. Syekh Nawawi Al Bantani Curug Kota Serang. The researcher chose this location because, despite being English students, the students still struggle with communicating. Because English is a second language for them, speaking English in daily activities is unusual. The research conducted from May, 16<sup>th</sup> 2021 – 30<sup>th</sup> November 2021.

## **C. Population and Sample of the Research**

### **1. Population**

The population is a generalization area made up of objects/subjects that have specified attributes and characteristics that the researcher has chosen to analyze and derive conclusions from.<sup>7</sup> According to Fraenkel and Wallen, the population is the group to whom the researcher would like to generalize the result of the study, in other words, the group of interest to the researcher.<sup>8</sup> The population of this research was the eighth semester of English Education Department. The population of this research has been five classes.

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<sup>7</sup>Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: ALFABETA, 2013), 80

<sup>8</sup>Jack R. Fraenkel and Norman E. Wallen, *How to Design and Evaluate Research in Education*, 7<sup>th</sup> Edition, (New York: McGraw-Hill, 2009), 91.

## **2. Sample**

The researcher used purposive sampling technique to select the sample. This technique determines the sample based on the certain condition. The sample of this research was one class which was consisting of 21 students.

### **D. Research instrument**

#### **Test**

Test is any procedure for measuring ability, knowledge, or performance.<sup>9</sup> To get data of students, the researcher carries out pre-test before giving treatment and posttest after treatment.

##### **a. Pre Test**

The pre-test was conducted at the first meeting. Pre-test was aimed to know basic oral skill of the students. The task for pre-test the students were asked to make a video about the topic that was chosen by the researcher. For pre-test the students were required to describe the crowded place that they have visited.

##### **b. Treatment**

The treatment of this research was described as follow:

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<sup>9</sup>Jack C. Richards and Richard Schmidt, "Longman Dictionary of Language Teaching and Applied Linguistics", (Britain: Pearson, 2010), 591.

- 1) Students are required to create a video regarding a topic chosen by the researcher. The students were required to describe the country that they want to visit
- 2) Students review the video that was created.
- 3) Following a re-watch of the video, students engage in self-reflection, identifying flaws in the video's accuracy and fluency using self-assess form accuracy and fluency by Graham Williamson and Martin<sup>10</sup>:

Table 3.2 Rubric to self-assess oral ability (Fluency)

How fluent was I?

Never fluent	Occasionally fluent	Often fluent	Mostly fluent

How often did these features occur in my speech?

	Most of the time	Sometimes	Never
Repetitions			
Prolongations			
Hesitations			

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<sup>10</sup> Martin Javier, "Improving L2 Oral Accuracy and Grammatical Range Through Self-Assessment of Video Speech Drafts", Vol. 20 No. 2, (Jul-Dec, 2018), 142

How often did I use slowed speech?

Never fluent	Occasionally fluent	Often fluent	Mostly fluent

How effective was I at communicating

Not at all effective	A little	A lot	Very

Table 3.3 Rubric to self-assess oral ability (Accuracy)

	<b>Accuracy: Refers to the language produced. It may contain errors but they should not interfere with communication</b>
	My grammar is almost entirely inaccurate which affects meaning, communication, and understanding.
	Make constant major and minor errors that affect meaning, communication, and understanding. I show control of very limited patterns
	I make several major errors and just some minor ones, but they rarely affect communication, meaning, and understanding.
	I produce occasional major errors and only some minor ones showing an imperfect control of patterns. I produce some misunderstanding, but message and communication are not unduly affected.
	I consistently use correct sentences to convey a message with just a few major or minor errors.

### c. Post test

The post-test was carried out at the last meeting. It was used for the post-test to examine if employing video recording to improve students' speaking had any effect. Students were requested to create a video with a new topic for the post-test. For posttest the students were required to describe the favorite place for shopping.

### E. Rubric for pre-test and post-test

The researcher used rubric to score the test Students' oral speech scores before and after testing were assessed using a self-reflection rubric that suggested by Holt, Rinehart and Winston<sup>11</sup>.

Table 3.4 Rubric for scoring

Score	Content	Comprehensibility	Accuracy	Fluency
19-25	Complete	Comprehensible	Accurate	Fluent
	Speaker consistently uses the appropriate structures and vocabulary necessary to	Listener understands all of what the speaker is trying to communicate.	Speaker uses language correctly, including grammar and word	Speaker speaks clearly without hesitation. Pronunciation and intonation seem natural.

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<sup>11</sup>Holt, Rinehart and Winston, *Holt Spanish 1 Assessment Program Differentiated Assessment for Slower-Paced Learners*, (New York: 2006), 200.

	communicate		order.	
13-18	Generally Complete	Usually comprehensible	Usually Accurate	Moderately fluent
	Speaker usually uses the appropriate structures and vocabulary necessary to communicate .	Listener understands most of what the speaker is trying to communicate.	Speaker usually uses language correctly, including grammar and word order.	Speaker has few problems with hesitation, pronunciation, and intonation.
7-12	Somewhat complete	Sometimes comprehensible	Sometimes accurate	Somewhat fluent
	Speaker sometimes uses the appropriate structures and vocabulary necessary to communicate	Listener understands less than half of what the speaker is trying to communicate.	Speaker sometimes uses language correctly.	Speaker has some problems with hesitation, pronunciation, and intonation.



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1-6	Incomplete	Seldom comprehensible	Seldom Accurate	Not fluent
	Speaker uses few of the appropriate structures and vocabulary necessary to communicate	Listener understands little of what the speaker is trying to communicate	Speaker seldom uses language correctly	Speaker hesitates frequently and struggles with pronunciation and intonation.

## F. The technique of collecting data

During the research, the researcher conducted several tests with students, including the researcher using a participant observation design. In this observation, the researcher is involved in the person's daily activities being observed or used as a source of research data. There are two tests for the students: pre-test and post-test. Students create three videos, and in the video, students are asked to describe a topic in English according to the topic identified by the researcher. Each time they make a video, the students correlate their reflection with their speaking skills. Students received their grades based on previously established grading criteria

## G. Technique of Analyzing Data

The researcher has identified the steps and formulas used to interpret the data in doing so. The researcher has collected data from the results of pre-test and post-test students for data analysis. The researcher has listed the tables and presented the primary and final grades of the students in this section. The researcher used a statistical calculation of the t-test to know whether or not the use of video recording to improves the student's accuracy and fluency.

Table 3.5 the score of pre-test and post-test (Illustration)

No	Participants	Pre-Test	Post-Test	Total
1				
2				

In scoring the students' speaking skills, the researcher needs a rater. According to Richards “Rater is a person who assigns a score or rating to test taker’s oral or written performance on the basis of a set of rating criteria”.<sup>12</sup> As a result, one experienced English as a foreign language teacher assisted the researcher in evaluating the test before and after the videos were created. The researcher also displays the video to the rater in order to measure each student's ability to speak in English.

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<sup>12</sup>Jack C. Richard and Richard Schmidt, “Longman Dictionary of Language Teaching and Applied Linguistics” (Britain: Pearson, 2010), 481.

After getting data from pretest and posttest, they are analyzed and processed by using statistic calculation of the t-test formula with significant degree 5% and 1%. The formula as follows:<sup>13</sup>

$$t_o = \frac{M_D}{SE_{M_D}}$$

$M_D$  = *Mean of Difference*, e calculated average value of the difference between the score of variable I and the score of variable II, which can be obtained by the formula:

$$M_D = \frac{\Sigma D}{N}$$

$\Sigma D$  = the number of differences between the scores of variable I (variable X) and the scores of variable II (variable Y), and D can be obtained by the formula:

$$D = X - Y$$

$N$  = *Number of Cases*

$SE_{M_D}$  = *Standard Error from mean of Difference* which can be obtained by the formula:

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<sup>13</sup>. Anas Sudjono, *Pengantar Statistik Pendidikan*, (Jakarta: PT. Raja Grafindo Perkasa, 2019), 305.

$$SE_{M_D} = \frac{SD_D}{\sqrt{N-1}}$$

$SD_D$  = standard deviation from of the difference between the score of variable I and the score of variable II, which can be obtained by the formula:

$$SD_D = \sqrt{\frac{\sum D^2}{N} - \left(\frac{\sum D}{N}\right)^2}$$

Afterward, to know the results of the tests (Pre Test and Post Test), the writer will make the table calculating students' scores. The last the writer will make a diagram of the figure Pre Test, Post Test, and Gain Score of students to show that the Score of students is on an average level for the calculating using formula:

a. *Determining* =

$$D = X - Y$$

b. *Add up* D, thus obtained:

$$\sum D$$

c. *Determining Mean from Difference*:

$$M_D = \frac{\sum D}{N}$$

d. *Squaring D*: then add up to get:

$$\Sigma D^2$$

e. *Determining Standard Deviation from Difference* ( $SD_D$ ), with formula:

$$SD_D = \sqrt{\frac{\Sigma D^2}{N} - \left(\frac{\Sigma D}{N}\right)^2}$$

f. *Determining Standard Deviation from Mean of Difference*, that is

$SE_{M_D}$  with formula:

$$SE_{M_D} = \frac{SD_D}{\sqrt{N-1}}$$

g. *Determining  $t_0$*  with formula:

$$t_0 = \frac{M_D}{SE_{M_D}}$$