

## **CHAPTER III**

### **RESEARCH METHOD**

This chapter presents the method which explains the research design, population and sample, research instrument, validity and homogeneity testing, data collecting method, and data analysis.

#### **A. Research Design**

Research design is a plan for how to collect and process data that can be implemented to achieve research objectives. Research design provides procedures for obtaining the information needed to develop or solve research problems. The design for quantitative research is pre-ordered and cannot be changed during the field research. In this research, the researcher would like to collect, process, and analyze the data to get conclusion of the research. This research called quantitative research because it will use number or statistics. Quantitative research focuses on the variables and the relationship between one variable and another. The aim is to conduct verification, namely to test theories by intermediary hypotheses using statistical techniques.

In this research will use Pre-experimental Research which consist of pre-test, treatment, and post test. The aim is to know whether video material via Zoom Cloud Meeting Application was effective to improve students' listening achievement. The researcher knew the aim after finding out the differences between students' scores before being taught and after being taught by using video material via zoom cloud meeting application in learning listening. The table of pre-experimental design was as follows :

**Table 3.1 Pre-experimental Design**

	X1	T	X2
Description	: X1		= Pre Test
	T		= Treatment
	X2		=Post Test

According to Cresswell (2008), quantitative research is means for testing objective theories by examining the relationship among variables. According to Sugiyono, quantitative research methods can be interpreted as a research method based on the philosophy of positivism, used to examine a particular population or sample.

These variables in turn can be measured. Typically on instrments, so that numbered data can be analyzed using statistical procedures. The final written report has a set structure consisting of introduction, literature and theory, method, results, and discussion.

The procedures of pre-experimental reasearch are :

1. Administering a pre-test measuring listening achievement of tenth grade students at MAN KOTA Blitar
2. Applying the experimental treatment teaching listening by using video material via zoom cloud meeting application to tenth grade student' of MAN KOTA Blitar
3. Administering a post-test measuring listening achievement of tenth grade students' at MAN KOTA Blitar.

Pre-experimental treatment is evaluated by comparing the scores between pre-test and post test by using SPSS. In this research, the significant differences students' listening quality before taught by using video material via Zoom Cloud Meeting Application and after taught by using video material via Zoom Cloud Meeting Application.

## **B. Population and Sample**

### 1) The Population

The population of this research was the tenth grade student of MAN KOTA Blitar which consist of one class. It consist of 32 students.

### 2) The Sample

The sample of this research was the X MIPA 3 which selected 32 students. The sample was selected using purposive sampling technique. They were chosen as the sample because they fulfilled the characteristics which had high score and has a excellent achievement in learning listening.

## **C. Variable**

Variables are concepts that have variations of the values. Variable in this research was divided into two. These were independent variable and dependent variable as follows :

- 1) The independent variable (x) of this research was the use of video material via zoom cloud meeting application.
- 2) The dependent variable (y) of this research was the students' listening achievement.

The indicator of the research was the students' listening achievement

which can be improved. It focused on students' ability to identify and analyze information through listening activities.

#### **D. Research Instrument**

The researcher used a student listening test by providing a video material via zoom cloud meeting application for students to listen to, then the students answer the questions in the form of multiple choice questions. The aim was to get information about students' listening achievement. The pre-test was given to find out, to measure, and to know the students' listening achievement before being taught by using video material via zoom cloud meeting application. Then, post test was given to know and find out the students' listening achievement after being taught by using video material via zoom cloud meeting application.

##### 1) Pre-test

Pre-test was conducted by the researcher on april, 22<sup>nd</sup> 2021 at MAN KOTA Blitar. The participant of the research was the students' of X MIPA 3 class which consist of 32 students that is 11 male and 21 female. The reseacher gave the pre-test before giving treatment to the students. The test is the students should listen the stories that has played by the teacher which was related to the material based on the curriculum then thay retelling the storied in writting form. The aim of this pre-test was to know the students' basic competence and prior knowledge in listening.

##### 2) Post test

Post test was conducted by the researcher on may, 7<sup>th</sup> 2021 at MAN KOTA Blitar. The participant of the research was the students' of X

MIPA 3 class which consist of 32 students that is 11 male and 21 female. The researcher gave post test to the students in last meeting. The aim of this post test was to find out and to know the results of treatment have an improvement or not to the students' listening achievement by comparing pre-test and post test.

#### **E. Data Collecting Method**

Collecting data is the most important thing because it determined the result of the research. The data collection method serves the way how the researcher get the data which is need. The method of collecting data will use in this research is testing. In this research, the researcher will test the students' listening achievement by answer the questions given by the researcher through the video material shared via zoom cloud meeting application. The test was conducted by the reseacher.

#### **F. Data Analysis**

Data analysis is the process of analyzing the acquired data. The data in this research is listening achievement of the tenth grade students of MAN KOTA Blitar before being taught and after being taught by using zoom cloud meeting application. To analyze the data, the researcher will use a statistical calculation called a paired sample test (T-Test) with the help of SPSS 23,0. The Paired Sample T-Test will compare two scores from the pre-test and post-test done in one group of subjects.

## **G. Validity and Reliability Testing**

1. Validity is the extent to how data will match with the research question. Validity is the most important aspect to consider when preparing or selecting an instrument of research. An instrument or test will be valid if it has content and constructs validity. Meanwhile, according to Sugiharto and Sitinjak (2006), validity is related to a variable measuring what should be measured. Validity in the study states the degree of accuracy of the measuring instrument of the study of the actual content being measured. Validity test is a test used to show the extent to which the measuring instrument used in measuring what is measured. Ghozali (2009) states that the validity test is used to measure the validity or validity of a questionnaire. A questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire.
2. Reliability is a necessary characteristic of any good test for it to be valid at all. According to Shohamy (1985:70) states that reliability refers to the extent to which is consistent in its score, and it gives one an indication of how accurate the test score are. A students' score on the test consist of a true score and mistake. Reliability help us estimate the error part of the score since there are different sources of error for different types of tests, there also different types of reliability.