CHAPTER III

RESEARCH METHOD

In this chapter, the researcher would like to explain the research method. It focuses on the method uses in conducting study. Some aspects discussed are research design, population, sample and sampling, research instrument, data collecting method, and data analysis.

A. Research Design

In this research, the researcher was conduct in a pre-experimental design using quantitative approach with One-Group Pretest- Posttest design. Ary et al (2006) state experimental research is to enable researcher estimate the effect of an experimental treatment. Experimental research can be done in the field, in the laboratory and in the classroom. In this study, the researcher will be done in the classroom with the sample has been obtained from a population.

This design can be summarize as follow:

Pre-test	Treatment	Post-test
Y_1	X	Y_2

Differences attributed to application of the experimental treatment are then determined by comparing the pre-test and post-test score. The experiment is the event planned and carried out by the researcher to gather evidence relevant to the hypothesis. In conducting an experiment, the

researcher devotes great care to the manipulation and control of variables and to the observation and measurement of results. It is through such a research method that the researcher can obtain the most convincing evidence of the effect that one variable has another.

In its simplest form, an experiment has three characteristics: (1) An independent variable is manipulated; (2) all other variables that might affect the dependent variable are held constant; and (3) the effect of the manipulation of the independent variable on the dependent variable is observed. Thus, in an experiment the two variables of major interest are the independent variable and the dependent variable.

The independent variables manipulated (changed) by the experimenter. The variable on which the effects of the changes are observed is called the dependent variable, which is observed but not manipulated by the experimenter. The dependent variable is so named because its value is hypothesized to depend on, and vary with, the value of the independent variable. For example, to examine the effect of different teaching methods on achievement in reading, an investigator would manipulate method (the independent variable) by using different teaching methods in order to assess their effect on reading achievement (the dependent variable).

A. **Population, Sample, and Sampling**

Population is the group of interest to researcher, the group which she or he would like the result of the study to generalizable Gay (1992). Population can be said as the subject of research.

In the research, the researcher tooks a population on the students of X-MIA grade at "MA Al Ma'arif Tulungagung" which the students speaking ability is less. The classes are consist of X-MIA class, X-IIS class, and X-IIK class with the total of students 50.

The researcher only use X-MIA class as the sample of the research without random the students because every class was have students with different ability and criteria. The classes are consist of 15 students (4 males and 11 females) with different ability.

Sampling is a way the researcher select the number of induviduals as a sample which represents the population. The reseacher using purposive sampling to selected of the sample. Sampling is indispensible to researcher Donald et. Al (2010). Then, the reseacher took X-MIA as a sample in this study.

B. **Research instrument**

Research instrument is a device used by researcher while collecting data to make her work becomes easier and to get better result, complete, and systematic in order to make the data easy to be processed. In this study the researcher use test (measurement) and scoring rubric.

1. Test

    Test is process of measuring students' knowledge and ability of students. According to Ary et al (2006) test is a set of stimuli presented to induvidual in order to elicit responses on the basis of which a numerical score can be assigned. There were two tests in this research, pretest and posttest. Pretest is a test to know and measure students' speaking ability before the treatment given. Whereas, posttest was to measure students' speaking ability after the treatmet given.

    Table 3.1 The schedule of the test and treatment

No	Day and Date	Activities
1	Wednesday, 18 April 2018	• Explain about narrative text and storytelling • Doing pretest
2	Friday, 20 April 2018	• Give treatment 1 explain definition, generic structures, and language feature of storytelling through video • Discussion
3	Monday, 23 April 2018	• Give treatment 2 explain definition, generic structures, example and language feature of storytelling through video • Discussion
4	Wednesday, 25 April 2018	• Explain about narrative text and storytelling • Doing posttest

2. Scoring Rubric

    To evaluate of students' speaking ability the reseacher set up analytic scoring rubric which include the criteria. Such as pronounciation, grammar, vocabulary, fluency and comprehension.

The reseacher gave score to the students' speaking by using scoring rubric

of speaking according to Hughes (2003) in the following formula below:

Table 3.2 scoring rubric of speaking

ASPECT	SCORE	PROFICIENCY DESCRIPTION
Pronunciation or Accent	1	Pronunciation frequently unintelligible
	2	Frequent gross errors and a very heavy acccent make understanding difficult, require frequent repetition
	3	"Foreign accent" requires concentrated llistening, and mispronunciations lead to occasional mmisunderstanding and apparent erors in grammar or vocabulary
	4	Marked "foreign accent" and occasional mispronunciations which do not interfere with understanding
	5	No conspicuous mispronunciations, but would not be taken for a native speaker
	6	Native pronunciation, with no trace of "foreign accent"
Grammar	1	Grammar almost entirely inaccurate except in stock phrases.
	2	Constant errors showing control of very few major patterns and frequently preventing communications.
	3	Frequent errors showing some major patterns uncontrolled and causing occasional irritations and misunderstanding.
	4	Occasional errors showing imperfect control of some patterns but no weakness that causes

		misunderstanding.
	5	Few errors, with no patterns of failure.
	6	No more than two errors during the interview.
Vocabulary	1	Vocabulary inadequate for even the simplest conversations
	2	Vocabulary limited to basic personal and survival areas (time, food, transportations, family, etc)
	3	Choice of words sometimes inaccurate, limitations of vocabulary prevent discussions of some common professional and social topics.
	4	Professional vocabulary adequate to discuss special interest; subject with some circumlocutions.
	5	Professional vocabulary broad and precise; general vocabulary adequate to cope with complex practical problem and varied social situations.
	6	Vocabulary apparently as accurate and extensive as that of an educated native speaker.
Fluency	1	Speech is so halting and fragmentary that conversation is virtually impossible.
	2	Speech is very slow and uneven expect for short or routine sentences.
	3	Speech is frequently hesitant and jerky; sentences may be left uncompleted.
	4	Speech is occasionally hesitant, with some unevenness caused by rephrasing and groping for words.

	5	Speech is effortless and smooth, but perceptively non-native in speed and evenness.
	6	Speech on all professional a general topics as effortless and smooth as a native speaker's.
Comprehension	1	Understand too little for the simplest type of conversations.
	2	Understand only to slow, very simple speech on common social and touristic topics; requires constant repetitions and rephrasing.
	3	Understand careful, somewhat simplified speech when engaged in a dialogue, but may require considerable repetition and rephrasing.
	4	Understand quite well normal educated speech when engaged in a dialogue, but requires occasional repetition and rephrasing.
	5	Understand everything in normal educated conversation in normal educates conversatio9n except for very colloquial or low-frequency items, or exceptionally rapid or slurred speech
	6	Understands everything in both formal and colloquial speech to be expected of an educated native speaker

$$score = \frac{\text{the total number gotten}}{\text{the maximal score}} \text{ x } 100\%$$

C. Validity and Realiability Testing

Validity is an important key to effective research. If a piece of research is not valid then it is worthless. Validity of the test refers to the extent to which inferences made from assessment result are appropriate, meaningful, and useful in terms of the purpose of the assessment Brown, (2004). This means that question of a research instruments validity is always specific to the particular situation and the particular purpose for which it is being used. In addition to being valid, a research instrument is considered to have a good content validity, face validity, and construct validity. The instruction of the test should not cause confusion and misunderstanding.

Reliability tests consistent and dependable data Brown, (2004). This statement suggests if you give the same test to the same or matched students on two different occasions, the test should yield similar result. Cohen et al (2000) suggests four main factors that might affect reliability: the range of the group that is being tested, the groups level of proficiently, the length of the measure (the longer the test the greater the chance of errors), and the way in which reliability is calculated. In this case, the researcher use SPSS to measure the reliability of the test.

The reseacher conducted a tryout for the test but in different subject before truly conducting this sample of research. It was done on Tuesday, 17th April 2018 in the X-IIK class. Then, the reseacher to find out the relialibility of students score which will calculated of score the test in *Person Product Moment* in IBM SPSS Statistics 16.

Table 3.3 The Statistical Correlation of Product Moment

Correlations		rater_1	rater_2
rater_1	Pearson Correlation	1	.786**
	Sig. (2-tailed)		.001
	N	15	15
rater_2	Pearson Correlation	.786**	1
	Sig. (2-tailed)	.001	
	N	15	15

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the table showed that the result of Pearson Correlation is 0.786. It is conclude that the instrument was strong the positive correlation. From the result of statistical correlation, the instrument indicating that the correlation was strong respective positive, it could be concluded that the instrument were reliable.

D. Data Collecting Method

Data of this study are collected by given an students speaking test in the form of storytelling. In the speaking test, the test used in this study has been tested on the other class in the same level. So, the test was valid. In this study, it is testing speaking by using storytelling from written stimulus. In this case, the writer used guided topic of storytelling in order to easily to give score.

In this case the researcher used two kinds of test. They were pre-test and post-test. Pre-test was taken before doing the experimental study or before teaching by using a storytelling taught video. The second was post-

test, it was taken after doing an experimental study or after teaching by using a storytelling taught video.

In getting the data, in class X-MIA that becomes an experimental group the writer as teacher in this study teaches the students in two weeks. In teaching learning process for the first the teacher gives pre-test in speaking. In the second the teacher teaches speaking by using storytelling through video. In the end, the teacher gives post-test to the students. The post-test in this case is speaking test in form of telling the stories through video was given by roleplay. The score was based on the pronunciation or accent, grammatical structure, vocabulary, fluency and the comprehension.