

CHAPTER III

RESEARCH METHOD

This chapter presents the research method. It focuses on the method used in conducting this study. The decision covers research design, setting and subject of the study, population, sampling and sample, variable, research instruments, data collecting method, and data analysis.

A. Research Design

Research is careful study on investigation, especially in order to discover new facts or information, such as scientific, historical research (Homby, 1995:996). It means that a study is done carefully and accurately on investigation of an event, problem or phenomenon about scientific to find out new information.

One of important things that should be considered in conducting research is research design. Research design is commonly defined as the way of thinking and doing preparation to complete and achieve the goal of research (Burn and Grove, 2005). Research method refers to the general strategy followed in gathering and analysis the data necessary for answering the question. In this study the research design used was quasi experimental with quantitative approach. This research was intended to investigate the effectiveness of dubbing movie video on students' speaking achievement of the second grade at MA At-Thohiriyah Tulungagung.

This study used quasi experimental design. The researcher chose this design is to determine the validity of conclusion can be drawn from the study. There are many kinds of experimental research, such as pre – experimental, randomized experimental or quasi-experimental or quasi – experimental (Ary, 2002:302).

This study used quasi experimental design in the form of two group. One control group and one group experiment group with pre-test-post-test design within quantitative approach. This research is a scientific investigation in which an investigator manipulates and controls one or more independent variables and observes the dependent variable or variables for variation concomitant to the manipulation of the independent variables (Ary, 1979). Quasi experimental research can be done in the laboratory, in the class and in the field. In this study the quasi experimental research will be done in the class with taking students as population.

In two – group pre-test-post-test design usually involves three steps : (1) administering a pre-test measuring the dependent variable, (2) applying the experimental treatment X to treatment class and no treatment in control class, and (3) administering a post-test, again measuring the dependent variable (Ary, 2002:302).

Table 3.1 Diagram of Two-Group Pre-test Post-test Design

Pre-test	Treatment (independent variable)	Post-test (dependent variable)
Y 1	X	Y2

In this study, the procedures of quasi experimental research that use Two-Group Pre-test-Post-test design are:

1. Administering a pre-test measuring speaking achievement of second grade students in IPS-A and IPS-B class at MA At-Thohiriyah Tulungagung.
2. Applying a treatment teaching speaking by using dubbing movie video to the second grade students in IPS-A class at MA At-Thohiriyah Tulungagung and no treatment but ordinary teaching in IPS-B class.
3. Administering a post-test measuring speaking achievement of second grade students in IPS class at MA At-Thohiriyah Tulungagung.

The differences attributed to application of the quasi experimental treatment are determined by comparing the pre-test and post-test score. In this study, the effectiveness of using animated movies towards speaking achievement will be known after knowing the significant differences scores of the students on speaking achievement before and after being taught by using animated movies.

B. Population, Sampling and Sample

1. Population

There are some explanations about the meaning of population. Population defines as a group of element or case, whether individual, objects, or events that confirm to specific criteria and to which intend to generalize the result of the research (James H, 2001:125)

The small group that is observed is called a sample, and the large group about which the generalization is made is called a population. Population is defined as all members of any well-defined class of people, event or objects (Ary *et al*, 2002:138). Population is used more generally; it refers to any collection of entities, of whatever kind, that is the object that have certain characteristics and it becomes the source data that is used by researcher in the study. The population of this research was the Second grade students of MA At-Thohiriyah Ngantru Tulungagung academic year of 2017/2018. It consisted of 43 students and divided into two classes, from IPS A and B class.

2. Sampling

The sampling is a technique to take a sample. Sampling is the process of selecting a number of individuals for a study in such a way that the individuals represent the large group from which they were selected (Gay, 1992:123). The purpose of the sampling is to get information about a population. In this study purposive sampling was chosen as a technique of choosing sample. Arikunto (2006:139) says that purposive sampling is the process of selecting sample by taking the subject that is not based on the level or area but it is taken based on the specific purpose. Basically purposive sampling involves selecting a sample which is believed to be representative given population in the other word the researcher use expert judgment to select a representative sample.

The researcher used purposive sampling technique to find the individual or sample. Purposive sampling is technique of taking sample by definite

consideration from the researcher. Purposive sampling belongs to non-probability sampling. Purposive sampling is used because of reasons. First, because of the researcher who selecting the sample is who tries to make the sample representative for the population of the study. Second, because the researcher points to her/his opinion or purpose to choose the current sample. Thus, the sample is being the representation subjective of the study (Barreiro and Albandoz, 2001:4).

Practically, there are some of reasons why the researcher chooses the class. First, the class has average proficiency on speaking based on the English teacher there. Second, the English teacher gives an official instruction to the researcher due to choose the class as a sample of this research among another class. Based on the English teacher in MA AT-THOHIRIYAH Ngantru, especially teacher of XI IPS.

3. Sample

Selecting sample is a very important step in conducting a research study. According to Gay (1992:126), sample is one that is representative of the population from which it was selected. It means that a good sample must be representative of entire as possible, so that the generalization of the sample as true as the population. In this research the researcher took XI IPS A and B class as the sample of this research that consisted of 43 students.

C. Variable

According Ary (2002), a variable is an attribute that is regarded as reflecting or expressing some concept or construct. Variable is divided into two; they are independent variable and dependent variable.

Based on the explanation above, in this study animated movies is as media on the teaching speaking at the eleventh grade students of MA At-Thohiriyah Ngantru Tulungagung which became independent variable. The dependent variable was the students' speaking achievement at second grade students' of MA At-Thohiriyah Ngantru Tulungagung. Thus, the present study was intended to find out the effectiveness of using dubbing movie on the students' speaking achievement through experimental study.

D. Research Instrument

An instrument was needed to collect the data. In order to collect data for research, the researcher used some methods and instruments. Instrument of the research played an important role in research project. The instrument was used to achieve the accuracy of the data and it can indicate that the researcher was successful in this research.

The instrument that was used in this study is speaking test that was developed based on syllabus that the teacher used in the school. By the test, the researcher supposed to assess students speaking achievement. Test in simple term, a method of measuring a person's ability, knowledge, or performance in a given domain. The researcher applied pre-test and post-test. Pre-test was taken before doing an experimental study or before teaching by. Pre-test was aimed to measure

the students preliminary their speaking knowledge and achievement before they entered the experimental circle. After getting the result of pre-test, the researcher gave treatment to teach speaking for all the students in treatment class by using dubbing movies and no treatment but traditional way for control class.

After doing treatment, the researcher gave post-test to all students. Post-test was taken after doing an experimental study or after teaching by using dubbing movies. Post-test was used to know the students speaking after taught by using dubbing movies. The researcher wanted to know how far the students can speak when treatment was on progress. Apparently, the result of the test showed that the students speaking mastery improved significantly compare to those who don't receive treatment.

E. Data Collecting Method

Data collecting method is the method that is used by the researcher to collect data. Data collecting is systematic and standardized procedure to obtain the necessary data (Tanzeh, 2009:57). If the data are wrong, the result of research will not be valid; a good data collecting methods should be applied. Methodology is a way used by researcher in order to collecting data in order to easier the research and better result in short the data is more accurate, more completed, and more systematically so that it will be easier to be analyzed.

Data is a note of fact or information that will be processed in the research activity. Arikunto (2006), data is a whole fact and number that can be used as material for arranging information is used as need. The data are very significant in

the research. The research cannot get information without the data. The data of this research were students' score of the second grade at MA At-Thohiriyah Ngantru Tulungagung in the form of speaking test which were divided into two group, treatment class and control class, pre-test and post-test.

After the researcher got permission from headmaster, the researcher started collecting data. The researcher gave test for experimental group using dubbing movie video.

Applying the test, the students were tested to perform their speaking. The test was in the form of telling story to measure achievement of an individual.

There are two kinds of test:

1. Pre-test

Pre-test was administered before doing an experimental research study or before teaching by applying animated movie. The pre-test was held on April, 17th 2018 in the pre-test students were given task to tell about their assumption which has been prepared by the researcher before. The researcher gave a movie and asked the students to listen and watch. The researcher asked the students to see what was happened on this movie, about place and about moral value. The researcher asked the students' assumption in front of the class for maximum 3 minutes. When the students' show their performance, the researcher recorded them and made the score.

2. Post-test

In this study, post-test was administered after doing the experimental research study to treatment class. The post-test was held on April, 21th 2018 and the task was asking students to tell about their assumption. Post-test is a measure taken after the experimental treatment has been applied. Post-test was used to measure students' ability after treatment process to know their knowledge after they got treatment for treatment class and after taught by traditional way for control class. It was done to know the final score and to know the students difference competence before and after they get treatment. The process of post-test is same with the process in pre-test.

F. Validity and Reliability

According to Donald Ary, research is always dependent upon measurement. There are two important concepts that research must understand when they use measuring instrument. There are validity and reliability (Ary, 2010:242). So, to know whether the test is good or not, and to make the data more valid and reliable, it needs validity and reliability testing for both of them.

1. Validity

Sukardi (2005:122) stated validity is degree that indicates in which a test measures what intended to measure. Validity is very important because one of the mains characteristic of test, without having this characteristic data is not accurate. Validity is the extent to which inference made from assessment result is appropriate, meaningful, and useful in terms of the purpose of assessment. Based

on this research, the researcher would use content validity; construct validity to know the validity of the test.

2) Content Validity

To make the test valid, the researcher used content validity. This kind of validity depends on careful analysis of the language being tested and the particular treatment activity. The test should be constructed to contain representative sample because the relevancy of the objective and the content of the test items showed the content validity of the test. The test is said to have content validity if its contents constitutes a representative sample of language skill, structure etc. being tested (Ida Isnawati, 2013:27). Therefore, the test used in this research to fulfill the content validity of speaking.

The content validity in this research can be shown as bellow;

Table 3.2 The Blue print of pre-test and post-test

Material	Task form	competence	Sub-competence	Indicator
Analytical Exposition Text	Speaking test	Expressing social function and structure of Analytical Exposition Text	a. Expressing the function and the structure of Analytical Exposition Text about an animated movie b. Expressing the content of analytical exposition text about animated movie	1. Students are able to express the topic of animated movie based on the context. 2. Students are able to express the content and the structure of Analytical Exposition Text

Based on the table above, the test had content validity because of there is appropriateness between the test and the purpose and indicator. In

order to obtain the validity of the test, the researcher used content validity by showing that the content of the test was a representative sample of the domain that was to be tested (Fulcher and Davidson, 2007: 6). For this, the grammar, vocabulary, and functional contents of the test were selected on the basis of the course syllabus. In addition, the test had proper to the syllabus in second grade of senior high school in the second semester.

b. Construct Validity

A test said to have construct validity if it can be demonstrated that it measures just the ability which is supposed to measure. The word construct refers to any underlying ability which is hypothesized in a theory of language learning. Brown (2004:25) mentioned that a construct is any theory, hypothesis or model that attempts to explain observed phenomena in our universe or perception.

According to Brown (2004:172-173), the aspects of speaking consist of five items: Grammar, Vocabulary, Comprehension, Fluency, and Pronunciation. Those 5 aspects should be used as the criteria of good speaking. In this research, the speaking test also used the 5 criteria above as the aspects of good speaking. The researcher asked the students to speak for 5 minutes based on the topic.

The criterion of success of the students speaking ability adapted and modified from Rubistar. They as follow:

Table 3.3 Analytic Oral Language Scoring Rubric

CATEGORY	4	3	2	1
Fluency	Speaks clearly and distinctly all (100- 95%) the time, and mispronounces no words.	Speaks clearly and distinctly all (100- 95%) the time, but mispronounces one word.	Speaks clearly and distinctly most (94- 85%) of the time. Mispronounces no more than one word.	Often mumbles or can not be understood OR mispronounces more than one word.
Vocabulary	Uses vocabulary appropriate for the audience. Extends Audience vocabulary by defining words that might be new to most of the audience.	Uses vocabulary appropriate for the audience. Includes 1- 2 words that might be new to most of the audience, but does not define them.	Uses vocabulary appropriate for the audience. Does not include any vocabulary that might be new to the audience.	Uses several (5 or more) words or phrases that are not understood by the audience.
Content	Shows a full understanding of the topic.	Shows a good understanding of the topic.	Shows a good understanding of parts of the topic.	Does not seem to understand the topic very well.
Time	Presentation is 5-6 minutes long.	Presentation is 4 minutes long.	Presentation is 3 minutes long.	Presentation is less than 3 minutes OR more than 6 minutes.

c. Face validity

A test called to have face validity if it looks as if it measures what is supposed to measure (Hughes, 1989:33). In this research, the test given to the students to measure speaking achievement especially used animated movies strategy. A test that does not have face validity may rejected by the validator, advisor, and the teacher. Another explanation said that face validity refers to the extent to which examinees believe that the instrument is measure what it is expected to measure (Ary, 2010:228). The example of face validity, a test which pretended to measure students speaking achievement but which did not required the test take to read might be thought lack of face validity.

In this research, the researcher used face validity by consulting with the expert as a validator. After that the test has some viewpoint that makes it reliable in the face validity such as; the instruction is each section have to understandable for the students, the question must not be ambiguity to make students able to answer it, the time allocation is appropriate for students who have to finish the test punctually.

2. Reliability

Fraenkel (2012) stated that reliability is the consistency of score obtained. A reliable test is consistent and dependable. Thus, if the students are given the same test on two different occasions, the test should yield similar result and the more similar the score are, the more reliable the test is. The test of try out through interview between the researchers with ten students. The researcher showed some

pictures to students and then the researcher asked students to tell about the story based on each picture. Then, the researcher made score from the result of interview. Besides that, the test was evaluated by the teacher after it was developed. Finally, try out is also done by the researcher.

To measure the reliability of instrument, the researcher used inter-rater reliability where the two scorers did the scoring and two sets of scores gotten from the two scorers were calculated to get the correlation coefficient. To fulfill the inter rater reliability, the teacher and an English Education Department student as the correspondents conducted the classroom try out. After the completed observation guides were given back to the researcher, the researcher made the recapitulation to check whether they agreed in most of the categories of the observation guide to make it consistent and reliable. The try out test was done on May 16, 2018.

It was found out that the results were similar. The scores were then subjected to the Pearson's Product Moment statistic to find the reliability of the test items. This was the result from 2 raters.

Table 3.4 Score Try Out

Name	Score 1	Score 2
DK	11	11
DR	11	11
HZ	10	10
MF	10	11
RM	10	11
UA	10	10
ZA	11	11
ZJ	10	11
MR	10	10
RM	10	10
Total	$\Sigma X = 103$	$\Sigma X = 106$

The result of reliability testing can be seen from table:

Table 3.5 The Result Of Reliability

Correlations

Correlations		rater1	rater2
rater1	Pearson Correlation	1	.584
	Sig. (2-tailed)		.011
	N	10	10
rater2	Pearson Correlation	.584	1
	Sig. (2-tailed)	.011	
	N	10	10

The test between rater 1 and rater 2 made result with R table for N = 10 5% is 0.5494. And r count was 0.584, which was bigger than r table. This means that the test had a very high reliability.

G. Technique Of Data Analysis

Quantitative approach was used in this study. Quantitative data is a technique to analyze and count the data. It means that the technique of quantitative data analysis is the process of data shaped by number. In this study, the researcher used the quantitative data to know the students achievement in speaking after they are taught by using dubbing movies as a media in teaching speaking. the researcher analyzed the result of the test after collecting the data by using an oral test. The result of the test was processed by comparing the data before and after treatment by t-test. But before, the researcher has to make sure the result pass the normality testing and homogeneity testing.

1. Normality Test

After the researcher got the result of the pre-test and post-test, the result has to pass normality testing. In statistics, normality tests are used to determine if a data set is well-modeled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed (Székely and Rizzo, 2005) .

2. Homogeneity Test

This test determines if two or more populations (or subgroups of a population) have the same distribution of a single categorical variable. Or the test for homogeneity is a method, based on the chi-square statistic, for testing whether two or more multinomial distributions are equal.

3. T-Test

The researcher used t-test to analyze the data. According to Cohen *et al* (2007:543), the t-test assumes that one variable is categorical (e.g., males and females) and one is a continuous variable (e.g., marks on a test).

The researcher in this study used the formula of T-test to analyses the data to know the result of students' test which are conducted before and after doing treatment. The data were analyzed using the following of t-test (Ary *et al*, 2002:162).

The researcher used T-test using statistical program to know the effectiveness and to get stronger conclusion. The t-test was taken from result of students' test which was conducted before and after doing treatment or taught by using dubbing movies.