

## **CHAPTER III**

### **RESEARCH METHOD**

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

This research was conducted in an experimental design using quantitative approach with One-Group Pretest-Posttest design. Experimental 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, 1985:26). Experimental research can be done in the laboratory, in the class and in the field.

Experimental research is unique in two very important respects, It in the only type of research that directly attempts to influence a particular variable, and when properly applied, it one or more dependent variables. An experimental usually involves two groups of subjects, an experimental group and a comparison group, although it is possible to conduct an experiment with one group (by providing all treatments to the same subjects) or with three or more groups (Frankle and Wallen, 1996:264).

This research used pre-experimental with One-Group Pretest-Posttest design. This research was classified as pre-experimental design because it was little or no control of extraneous variables. In the One-Group pretest-posttest design, a single group was measured or observed not only after being exposed to a treatment of some sort, but also before.

According to Ary et al. Introduction to Research in Education (2010, 2006: 303-304) the design of One Group Pretest-Posttest is as follows:

**Table 3.1 One Group Pretest-Posttest Design**

Pretest	Independent	Posttest
Y1	X	Y2

## **B. Population and Sample**

### **1. Population**

According to Sugiyono (2011: 80) population is not only people, but also all of the quantity of object or subject that will be learnt, but also involve the whole of characteristics of the subject or object.

The population of the research is the eighth grade students of MTs Al Ma'arif Tulungagung.

### **2. Sample**

According to Sugiyono (2009: 118) the sample is some part of the total and characteristic that is has of the population. In this study, the researcher took one class as a sample. They are class VIII B.

### **C. Variables of the Study**

According to Kerlinger in Arikunto (2006: 119), that all experiments have one fundamental idea behind them; to test the effect of one or more independent variables on a dependent variable (it is possible to have more than one dependent variable in experiments). In this research there were two variables: independent variables and dependent variables.

An independent variable represented the output or effect, or was tested to see if it is the effect. Dependent variable represents the input or causes, or were tested to see if they are the causes. In this research, the independent variable was the experiment of using small group interaction in the first grade in junior high school, while the dependent variable was speaking ability.

### **D. Description of Treatment**

Speaking is the delivery of language through the mouth. Speaking is probably the language skill that most language learners wish to perfect as soon as possible.

In this research, the researcher wants to know the effectiveness of small group interaction on teaching students speaking skill in eight class of MTs Al Ma'arif Tulungagung. Students have to support to use the language orally to communication ideas, feelings, and opinions. In this case, the researcher would use role-play technique in teaching speaking. The researcher hope learning English through group interaction with role-play technique should be interesting, relaxing, enjoyable, educating and encouraging students to speak up. At the first,

Teachers divide groups, each group consisting of at least 5 students, that will be 8 groups and divide into 2 parts, part A and B that consist of 4 group. The researcher will share the materials to be taught in the form of paper that contains role play about introduction and introducing others to learn. From this group, the researcher believe that this is will train for fluency and pronunciation, also will make student ready for action just like a relaxation, make a group will make student creating new ideas environment and sharing information also knowledge. Then the researcher give task of matching the phrase that each group must say aloud, part A mention the phrase expression used for introductions in English (eg: A> nice to meet you) and part B will answer in Indonesian ( B> Senang bertemu denganmu), and by other side. Furthermore, with the same position, the teacher gives task A as an introducer and part B that gives response, and done the opposite. Subsequently performed by group representatives (1 student) and answered by another group. The researcher believe that this method will make student more enthusiasm and more interest to the material. For the next the researcher give the task of introduction by each group that must practice in front of the class, while the teacher assess the student do. The purpose of this activity is students are able to speak up, not just to speak, but include good pronunciation, fluency, many vocabulary and right grammar. At the end of the lesson, the teacher reads the material which aims to sharpen the pronunciation that has been taught and followed by the students simultaneously and repeated for the students to be fluent in pronunciation of the expression phrase.

### **E. Research Instrument**

Research instrument refers to any equipment used to collect the data (Arikunto, 2010:262). As an experimental research, the instrument used in this research was tests, especially speaking test. According to Ary et al (2006:201) test is a set of stimuli presented to individual in order to elicit responses on the basis of which a numerical score can be assigned.

The researcher gave treatment to the experimental group and he used small group interaction as the treatment of teaching speaking. The purpose of using small group interaction was to give new inspiration that can be applied in teaching speaking.

**Table 3.1 : Scoring Guide of Speaking**

Grammar:

Score	Criteria
100-91	Grammar is correct.
90-81	A few grammatical errors but still can understood easily.
80-71	Some grammar is error but still can be understood.
70-61	Grammar frequently unintelligible.
60<	Errors in grammar are frequent.

## Vocabulary:

Score	Criteria
100-91	Using varied vocabularies which are appropriate with the context.
90-81	A few vocabularies used are inappropriate with the context.
80-71	Students are able to speak language with sufficient vocabulary.
70-61	Students have speaking vocabulary sufficient to simply express themselves.
60<	Speaking vocabulary inadequate.

## Fluency:

Score	Criteria
100-91	Speak fluently with only slight hesitations that do not interfere with communication.
90-81	Speak fluently with occasional hesitation.
80-71	Speak hesitantly because of recalling and searching for words.

70-61	Speak in single words utterance, very slow and short pattern.
60<	No specific fluency description.

Pronunciation:

Score	Criteria
100-91	Pronunciation is clear and correct.
90-81	A few unclear or error pronunciation but still can be understood easily.
80-71	Some Pronunciation is unclear or error but still can be understood.
70-61	Pronunciation frequently unintelligible.
60<	Errors in pronunciation are frequent.

#### **F. Validity and Reliability testing**

Researcher is always dependent upon measurement. There are two important characteristics that every measuring instrument should go through a process of validity and reliability check.

## 1. Validity

Fraenkel and Wallen (2005:113) states that a valid instrument is measures what it is supposed to measure. Validity is the most important idea to consider when preparing or selecting an instrument for use.

These are four types of validity; 1) Content validity, 2) Criterion related validity, 3). Construct validity, 4). Face validity. In this research, to measure whether the test has a good validity, the researcher analyzed the test from face validity and content validity.

### a. Face validity

Face validity refers to the degree to which a test looks right, and appears to measure the knowledge or abilities it claims to measure, based on subjective judgment or the examinees who take it, the administrative personnel who decide on its use, and other psychometrically unsophisticated observers (Brown, 2004). The test in this research was designed to measure students' speaking skill, thus, to achieve face validity, the researcher provided the instructions to ask students to write. In this study, the face validity was done through validated by the expert.

### b. Content Validity

**Table 3.2**

Basic competence	Material/Skill Test	Indicator	Form Test
---------------------	------------------------	-----------	-----------

Expressing meaning in simple short oral transactional and interpersonal conversations to interact with the surrounding environment	Speaking / Role Play	Identify the meaning and function of the expression greeting people who have not / already known and introduce yourself / others.	Transactional/ interpersonal
--	----------------------	---	------------------------------

## 2. Reliability

Based on Horizon (1983:10) says that the reliability of the test is its consistency. Thus, reliability is a measure of accuracy, consistency, dependability or fairness of scores resulting from administration or particular examination. According to Heaton (1989:162) reliability is necessary characteristic of any good test: for it to be valid all, a test must first be reliable as a measuring instrument. Ary (2002:250) states that reliability is concerned with the effect of such random errors of measurement on the consistency of scores.

Actually, the ideal test should be both reliable and valid. In this research, the researcher also used SPSS 16.0 for window to know the reliability of test instruments. According to Ridwan (2004:118), the criteria of reliability instrument can be divided into 5 classes as follows:

1. If the *alpha cronbach* score 0.00-0.20: less reliable
2. If the *alpha cronbach* score 0.21-0.40: rather reliable
3. If the *alpha cronbach* score 0.41-0.60: enough reliable
4. If the *alpha cronbach* score 0.61-0.8: reliable
5. If the *alpha cronbach* score 0.81-1.00: very reliable

The result of reliability testing by using SPSS 16.0 can be seen from the table:

**Table 3.4**

Reliability Statistics

**Reliability Statistics**

Cronbach's Alpha	N of Items
.809	2

To know the items is reliable or not it can be seen from Alpha Cronbach's column. The Alpha Cronbach's score = 0,809 means that it is reliable.

## **G. Normality Testing**

### **1. Normality Testing**

Normality test is used to test whether a variable is normal or not. Normal here means if the data have a normal distribution. The main reason of conducting normality testing in a research is that it is necessary for the researcher to know that the population or data involved in the research is in normal distribution. To test the normality of the data can use the *One Sample Kolmogorov-Smirnov* test with the provision that if *Asymp. Sig* > 0,05 the data were normally distributed (Asmarani, 2008:234). In this case the normality using *SPSS (Statistical Product and Service Solutions) 16.0 for Windows*. The hypotheses for testing normality are:

- a.  $H_0$  : Data is in normal distribution
- b.  $H_1$ : Data is not in normal distribution

In testing the hypotheses, the data is in normal distribution if  $H_0$  is accepted. In this case,  $H_0$  is rejected if significance value is lower than 0.05 ( $\alpha = 5\%$ ) while  $H_0$  is accepted if the significance value is higher than 0.05.

## **H. Data Collection Method**

Data of this study is collected by administering test. Test is simple terms, a method of measuring a persons' ability knowledge, or performance in a given domain. (Ary, Jacobs, & Sorensen, 2010, 2006) the researcher uses two kinds of test those are pretest and Posttest.

In this research, the researcher used test by using group interaction to measure the student speaking skill. The instrument used in speaking test. It was to know the students' ability in speaking before and after taught group interaction. Furthermore, there are two speaking tests administering here, namely pretest and Posttest:

#### 1. Pretest

Pretest is a test that is given to eighth grade students at MTs Al Ma'arif Tulungagung. To measure their ability before treatment process, this test is given to know the basic competence for 35 students and to know the earlier knowledge before they got treatment. Before treatment, pretest is a test which had done to measure the student achievement in the first time. Pretest was done before treatment process. It was done on Wednesday, April 17<sup>th</sup> 2017. Pretest is given to experimental group; it is to know the speaking skill of the students. The scores are the analyzing results to determine the students' score between pretest and posttest.

#### 2. Posttest

Posttest is test that is given to eighth grade students MTs Al Ma'arif Tulungagung. To measure their ability after treatment process, this test was given to know the basic competence for 35 students and to know the knowledge after they got treatment. It was done on Wednesday, May 28<sup>th</sup> 2017. It is to know the final scores and to know the students' competence difference before and after they get treatment. Treatment here means that the

researcher use group interaction in teaching speaking. This test was given after teaching process has done.

## **I. Data Analysis**

The technique of the data analysis used in the research is quantitative data analysis. This is a technique used to analyze and count the data, to know the students skill on speaking as they work in group interaction. The research in this research used paired sample T test stated by SPSS v.16.0

The researcher's assumption of those hypotheses is as follow:

- a. If the significant level is higher than T-table, the alternative hypothesis ( $H_a$ ) is accepted and the null hypothesis ( $H_0$ ) is rejected. It means that there is different score to the students who was not taught using group interaction and the students who was taught using group interaction.

- b. If the significant level is shorter than T-table, the null hypothesis ( $H_0$ ) is accepted and the alternative hypothesis ( $H_a$ ) is rejected. It means that there is not different score to the students who was not taught using group interaction and the students who was taught using group interaction.